BLM LIBRARY
88018438

WHITE SANDS

RESOURCE AREA

FINAL

RESOURCE MANAGEMENT PLAN

ENVIRONMENTAL IMPACT STATEMENT

US DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT OFFICE
NEW MEXICO

SEPTEMBER 1985

NOTICE

THIS IS THE FINAL RESOURCE MANAGEMENT PLAN/ENVIRONMENTAL IMPACT STATEMENT (RMP/EIS) FOR THE WHITE SANDS RESOURCE AREA. THIS FINAL RMP/EIS INCORPORATES THE DRAFT RMP/EIS BY REFERENCE AND INCLUDES A SUMMARY OF THE DRAFT, CHANGES TO THE DRAFT RESULTING FROM PUBLIC REVIEW AND COMMENT, A RECORD OF PUBLIC COMMENT ON THE DRAFT, THE RESPONSES TO THOSE COMMENTS, AND THE PROPOSED PLAN. COPIES OF THE DRAFT RMP/EIS ARE AVAILABLE FROM THE BLM LAS CRUCES DISTRICT OFFICE, 1800 MARQUESS STREET, LAS CRUCES, NEW MEXICO 88005.

BLM-NM-PT-85-012-4410

IN REPLY REFER TO:
1616 (037)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT OFFICE
1800 Marquess Street
Las Cruces, New Mexico 88005

September 1985

Dear Reader:

Enclosed for your review is the Final White Sands Resource Management Plan/Environmental Impact Statement (RMP/EIS). The RMP/EIS analyzes the impacts of managing the public land in the White Sands Resource Area in Otero and Sierra Counties, New Mexico.

Comments on the Final RMP/EIS should be sent to the Area Manager, White Sands Resource Area, 1800 Marquess Street, Las Cruces, New Mexico, 88005.

This Final RMP/EIS contains the Proposed Plan. The Proposed Plan is a modified version of the Preferred Alternative published in the Draft RMP/EIS in March 1985. All parts of the Proposed Plan may be protested. Protests should be sent to the Director, Bureau of Land Management, 18th and C Streets NW, Washington, D.C., 20240, within 30 days from the filing date of the Final. The protest should include the following information: (1) the name, mailing address, telephone number, and interest of the person filing the protest; (2) a statement of the issue or issues being protested; (3) a statement of the part or parts being protested; (4) a copy of all documents addressing the issue or issues that were submitted during the planning process by the protesting party or an indication of the date the issue or issues were discussed for the records; and (5) a concise statement explaining why the BLM New Mexico State Director's decision is wrong.

At the end of the 30-day protest period, the Proposed Plan, excluding any portions under protest, shall become final. Approval shall be withheld on any portion of the plan under protest until final action has been completed on such protest. The approval process and the final plan will be published with the Record of Decision in March 1986.

This Final RMP/EIS was prepared using the comments received through the review process on the Draft RMP/EIS. Because the changes suggested through the public review process did not require a major rewrite of the Draft and substantial cost savings could be realized by reprinting only the responses to comments and the corrections and modifications, the Draft RMP/EIS has been incorporated into this Final RMP/EIS by reference. Thus, this document must be used in conjunction with the Draft RMP/EIS. A limited number of copies of the Draft are available from the BLM, Las Cruces District Office, 1800 Marquess Street, Las Cruces, New Mexico, 88005.

Sincerely,

H. James Fox
District Manager

#13289416
1D88018438

BLM LIBRARY
SC-324A, BLDG. 50
DENVER FEDERAL CENTER
P. O. BOX 25047
DENVER, CO 80225-0047

QH
76.5
.N6
U547
1985 b

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FINAL
WHITE SANDS RESOURCE AREA
RESOURCE MANAGEMENT PLAN/ENVIRONMENTAL IMPACT STATEMENT

The Bureau of Land Management proposes to implement a multiple use Resource Management Plan on 1.8 million acres of public land in the White Sands Resource Area in Otero and Sierra Counties in south-central New Mexico. The Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) focuses on four issues: Rangeland Management, Special Management Areas, Land Tenure Adjustment, and Access. Five alternative plans are considered in detail in the RMP/EIS: a balanced alternative, a production-oriented alternative, a protection-oriented alternative, a no action alternative, and a no livestock grazing alternative. The document describes the affected environment and the environmental consequences which would result from the implementation of each alternative. A Proposed Plan for the White Sands Resource Area is included in the Final RMP/EIS. The plan was developed following a 90-day review of the Draft RMP/EIS.

Type of Action: (x) Administrative ( ) Legislative

For Further Information Contact: Larry Nunez, Area Manager
White Sands Resource Area
1800 Marquess Street
Las Cruces, New Mexico 88005

Telephone: Commercial: (505) 525-8228
FTS: 571-8353

Comments Have Been Requested From: See Public Participation and Coordination.

Date Filed with Environmental Protection Agency: 13 SEP 1985

Date on Which Comments are Due: OCT 21 1985

Recommended:

District Manager
Las Cruces District Office
Las Cruces, New Mexico

Approved:

State Director, New Mexico

BLM LIBRARY
SC-324A, BLDG. 50
DENVER FEDERAL CENTER
P. O. BOX 25047
DENVER, CO 80225-0047

SUMMARY OF THE DRAFT RMP/EIS

SUMMARY

The Draft White Sands Resource Management Plan (RMP) and Environmental Impact Statement (EIS) explores future management options for the White Sands Resource Area (WSRA). When completed, it will provide a framework for managing and allocating land and resources on 1.8 million acres of public land in Otero and Sierra Counties, New Mexico.

The RMP/EIS deals with four issues: Rangeland Management, Special Management Areas, Land Tenure Adjustment, and Access; and examines five alternatives:

Alternative I -- Balanced
Alternative II -- Production
Alternative III -- Protection
Alternative IV -- No Action
Alternative V -- No Livestock Grazing

ALTERNATIVE I -- BALANCED

The Balanced Alternative objective is to provide a combination of harmonious but diverse resource uses throughout the Resource Area. This alternative provides for the production of needed goods and services while protecting important and sensitive environmental values. The environmental consequences were analyzed and this alternative was selected as the preferred alternative.

Major Components

Under the Balanced Alternative, livestock grazing systems would be implemented on Category I and selected Category M allotments. Forage production would be increased in the long-term through chemical vegetation treatments on 58,742 acres. In addition, 2,381 acres of prescribed burning and 1,597 acres of seeding are proposed. In the long-term, projected livestock forage would be 181,864 animal unit months (AUMs). Construction of rangeland developments in the short-term would include pipelines, fences, wells with pumps or windmills, storage tanks, drinking troughs, earthen stock tanks, and a catchment. Watershed values on 62,586 acres of rangeland would be improved. Off-road vehicle (ORV) use on this same acreage would be limited to existing roads and trails. Forage would be provided for 12,588 mule deer and 1,666 pronghorn while the wild burro herd would be maintained at 12 animals.

All land not limited or closed to ORV use would be designated as open. This would encompass 1,667,134 acres in the two-county area. At the same time, several areas would be designated as Special Management Areas. Improvement and protection of 280 acres in the Percha Creek riparian area

would be accomplished by fencing to eliminate livestock grazing and limiting ORV use to existing roads and trails. Forty-acre study plot exclosures typifying each of the forty-one range sites and the one pseudoriparian Standard Habitat Site (SHS) would be fenced and closed to ORV use. In the Sacramento Escarpment, 3,640 acres would be designated as an Area of Critical Environmental Concern (ACEC) for visual resources. In addition to the existing 3,270 acres designated No Surface Occupancy (NSO), an additional 370 acres would be designated NSO. ORV use would be limited to designated roads and trails. To improve and protect 1,160 acres of Lake Holloman and adjacent lands, livestock grazing would be eliminated. On 15,490 acres of the Cornudas Mountains, ORV use would be limited to existing roads and trails.

In an effort to preserve and protect various cultural resources within the Resource Area, ORV use and surface occupancy would be limited or curtailed at specific sites. At the 960-acre Three Rivers Petroglyph Site and Picnic Area, ORV use would be limited to existing roads and trails. In the Rattlesnake Hill archaeological district, 640 acres would be closed to ORV use. A total of 200 acres of the Alamo Mountain petroglyph area would be designated NSO and closed to ORV use. In the Lone Butte area, ORV use would be limited to existing roads and trails on 100 acres while 120 acres of the Jarilla Mountains would be closed to ORV use. No surface-disturbing activities would be allowed in an area 1/4 mile from each side of well-preserved segments of the Butterfield and Jornada del Muerto Trails.

Approximately 45,000 acres of public land within the Resource Area would be considered for land tenure adjustment including isolated and difficult to manage parcels, lands needed for community expansion, and lands where interest has been shown. To provide additional legal access to public land, 238 miles of new roads would be constructed while 36 miles of easements would be acquired.

Environmental Consequences

Access

By constructing new roads or acquiring easements across non-Federal existing roads, access to public land would be guaranteed, resulting in fewer user complaints (of lack of access to public land) and an increase in the efficiency of managing public land.

Lands

Under the Balanced Alternative, impacts to lands would be significant due to the loss of 45,000 acres. However, this would only represent 2.5 percent of the total BLM acreage managed in the Resource Area.

Geology and Minerals

Designation of Special Management Areas in areas of moderate to high mineral potential could significantly affect leasable mineral exploration and development.

Soils

Wind and water erosion would decrease slightly in the long-term on the 61,123 acres where vegetation has been chemically treated or burned. Sediment yields would decrease on the 62,586 acres of rangeland proposed for watershed treatments. Soils would be disturbed on approximately 194 acres in the short-term and 40 acres in the long-term following construction of new rangeland developments. Concentration of livestock around new water facilities would compact medium and fine textured soils. In areas not closed to ORVs, medium and fine textured soils would be susceptible to compaction and the formation of ruts, especially when wet. On steep slopes, soils would be susceptible to accelerated erosion where soil structure is altered by unrestrained ORV use. Approximately 576 acres of soils would be disturbed during the construction of new roads.

Water Resources

Peak runoff rates would increase slightly in the short-term on the 58,742 acres chemically treated for brush control. In the long-term, however, runoff rates would decrease an average of 15 percent on key range sites. Surface water contamination from herbicide application would not be significant due to stipulations calling for buffer strips and carefully controlled application near surface water impoundments. Contamination of ground waters would be remote because of very slow rates of movement in the soil and rapid biological and photo detoxification.

Long-term water depletion by livestock, wildlife, and earthen stock tank evaporation would be approximately 450 acre-feet per year.

Watershed treatments on 62,586 acres would include both structural and land treatment measures to address the problems of flood and sediment damages. Primary objectives of the treatments would include a reduction in peak runoff rates, a reduction in sediment yields, improved water quality, and better on-site utilization of runoff water.

The fencing of the riparian area along Percha Creek to eliminate ORV and livestock use would slightly improve channel stability along the protected portion of the stream in the long-term.

Vegetation

Acres in excellent, good, and fair ecological condition and good forage value classes, as well as vegetation ground cover, would increase in the long-term. Acreage in poor ecological condition and fair and poor forage value classes would decrease in the long-term. Acreage changes would be a result of proposed vegetation treatments, grazing management treatments, and rangeland developments. Desirable and intermediate forage species production would increase three to four times on chemically treated areas.

Livestock Grazing

There would be an increase of 6,017 AUMs on 18 allotments as a result of proposed vegetation treatments on 58,742 acres of public land. In

the long-term, there would be an increase in AUMs of 20 percent above preference on Category I and selected Category M allotments as a result of proposed vegetation treatments, grazing management treatments, and rangeland developments. The remaining Category M and C allotments would maintain their present 5-year average licensed use of 8,510 AUMs in the short- and long-term. These allotments could be grazed to their preference of 9,084 AUMs.

Livestock AUM reductions for allotments in all categories would be 22 percent below preference in the short-term and an increase of 23 percent above preference in the long-term. Under the worst-case situation, Category I and selected Category M allotments would be reduced 22 percent below preference in the short-term. These AUMs would be held in suspended preference.

Wild Burros

The wild burro herd would be managed at approximately 12 head and excess animals would be made available under the Adopt-A-Horse Program.

Wildlife

Twenty percent of Standard Habitat Site (SHS) acres would increase to the next higher ecological condition. Increasing ecological condition would promote desirable shrub-type browse species by about 12 percent. There would be a 48 percent increase in demand for big game (deer and pronghorn) AUMs. Improving the ecological condition and protection of the riparian habitat along the Percha Creek and Lake Holloman would benefit waterfowl, deer, and riparian habitat-associated species.

Impacts of land tenure adjustment on wildlife and habitat depends upon subsequent land use, which is unknown. At worst, about 45,000 acres of various habitat types would be lost, including habitat for an estimated 158 deer. The impacts from new road construction could eliminate a small percentage of various habitat types, increase disturbance of big game if roads are located near the pseudoriparian SHS, and have an insignificant impact on the more important habitat types which occur in smaller acreages, if they are avoided in final route selection.

Recreation

New vehicular access would result in improved recreational access and could result in increased interaction between recreational and nonrecreational users. Existing recreation values in the Sacramento Escarpment and Three Rivers Petroglyph Site and Picnic Area would be protected.

Visual Resources

Visual contrasts would occur and would result in moderate long-term impacts on the area's visual quality.

Wilderness

The natural quality of the Brokeoff Mountains Wilderness Study Area (WSA) and the former Little Dog Canyon WSA would be reduced by proposed rangeland improvements.

Cultural Resources

Trampling, rangeland improvements, land tenure adjustments, and additional access could impact cultural resources by damaging sites, transferring sites out of Federal control, or increasing disturbance to sites. Limiting ORV use, improving erosion conditions, and fencing would protect sites.

Social and Economic Conditions

In the short-term, there would be a decrease of approximately 8.5 percent in AUMs from the 5-year average. Total receipts from ranching would decline by approximately $341,902. Hired ranch labor would decline to 27 jobs from an estimated 29 existing jobs. This would account for a decrease in wages and salaries paid by $12,719. Total employment would decline by 5 jobs with employee compensation declining by $49,000 in the Resource Area economy. Approximately $2.6 million would be expended for rangeland improvements. The Resource Area economy would experience an estimated increase in employment of approximately 50 jobs and an increase in employee compensation of approximately $621,000. The social values of living in the area would not change. Those individuals associated with the ranching way of life would continue to maintain their identity as such.

In the long-term, total receipts would increase to just under $4.4 million. Hired ranch labor would increase by 16 jobs and increase salaries paid to ranch hands by an estimated $111,587. Total employment in the Resource Area is estimated to increase by 16 jobs and employee compensation would increase by $153,469. The social values, attitudes, and beliefs in the Resource Area would be reinforced and would be favorable for those who have the identity and role of "rancher." The 45,000 acres identified for land tenure adjustment have an estimated value for analysis purposes of approximately $4.5 million. If these lands are sold, they could add $1.5 million to the total assessed valuation of the Resource Area economy. Estimated potential tax revenues could amount to $24,000 with payments in lieu of taxes not affecting the Resource Area economy. Construction and maintenance of 238 miles of new roads would inject $6.2 million into the economy.

ALTERNATIVE II -- PRODUCTION

The Production Alternative objective is to emphasize making public land and resources available for use and development. Environmental values would be protected to the extent required by applicable laws, regulations, and policies; however, livestock forage production and land disposal would be favored.

Major Components

Under the Production Alternative, livestock grazing systems would be implemented on all allotments with the exception of Section 15 allotments. Livestock forage would increase to 191,003 AUMs in the long-term. Forage production would be increased in the long-term through chemical vegetation treatment on 145,115 acres. In addition, 2,381 acres of prescribed burning and 1,597 acres of seeding are proposed. Construction of rangeland developments in the short-term would include: pipelines, fences, wells with pumps or windmills, several 20,000-gallon storage tanks, drinking troughs, earthen stock tanks, and one catchment. Watershed values on 62,586 acres of rangeland would be improved. Forage would be provided for 5,955 mule deer and 731 pronghorn while the wild burro herd would be removed and made available for adoption.

Three 40-acre study plot exclosures would be fenced to typify each of the three life zones. Under this alternative, all public land within the Resource Area would be designated open to ORV use.

Under the Production Alternative, 58,000 acres of public land would be considered for land tenure adjustment. This acreage would include isolated and difficult to manage parcels, lands needed for community expansion, and lands where an interest has been shown. To provide additional legal access to public land in the two-county area, 422 miles of new roads would be constructed and 66 miles of easements would be acquired.

Environmental Consequences

Access

By constructing new roads or acquiring easements across non-Federal existing roads, access to public land would be guaranteed, resulting in fewer user complaints (of lack of access to public land) and an increase in the efficiency of managing public land.

Lands

Under the Production Alternative, BLM acreage would decrease by 3.25 percent.

Soils

Soils would be disturbed on approximately 215 acres in the short-term and 42 acres in the long-term following construction of new rangeland developments. Medium and fine textured soils would be susceptible to increased soil compaction where livestock concentrate around new water facilities. There would be a slight decrease in soil loss on the 145,115 acres chemically treated for brush control. Erosion condition would improve on the 62,586 acres of rangeland proposed for watershed treatments.

Medium and fine textured soils would be susceptible to compaction and the formation of ruts by ORVs. On steep slopes, soils would be

susceptible to accelerated erosion where soil structure is altered by unobstructed ORV use. Approximately 1,021 acres of soils would be disturbed during the construction of new roads.

Water Resources

Peak runoff rates would increase slightly in the short-term on the 145,115 acres chemically treated for brush control. In the long-term, runoff rates would decrease an average of 17 percent on key range sites. Surface water contamination from herbicide application would not be significant due to stipulations calling for buffer strips and carefully controlled application near surface water impoundments. There would be a higher potential for surface water contamination, however, because of the large number of acres proposed for treatments. Contamination of ground water would be remote because of rapid biological and photo detoxification of the herbicides and very slow rates of movement in the soil.

Long-term water depletion by livestock, wildlife, and earthen stock tank evaporation would be approximately 462 acre-feet per year.

Watershed improvements on 62,586 acres would include both structural and land treatment measures to address the problems of flood and sediment damages. Primary objectives of the treatments would include reducing peak runoff rates, reducing sediment yields, improving water quality, and better on-site utilization of runoff water.

Vegetation

Vegetation would be disturbed or destroyed on 215 acres in the short-term and destroyed on 42 acres in the long-term as a result of construction of rangeland developments. Acreage in excellent, good, and fair ecological condition would increase, with acreage in poor ecological condition decreasing in the long-term. Acreage in good and fair forage value classes would increase, with acreage in poor decreasing in the long-term. Acreage changes would be a result of proposed vegetation treatments, grazing management treatments, and rangeland developments. Vegetation ground cover would increase in the long-term with desirable and intermediate forage species increasing three to four times on chemically-treated areas and at least four times on reseeded areas.

Livestock Grazing

An increase of 12,417 AUMs would occur on 45 allotments as a result of chemical vegetation treatments on 145,115 acres in the long-term. Under the worst-case situation, livestock grazing would be reduced 22 percent from preference in the short-term. In the long-term, there would be an increase in AUMs of 29 percent above preference.

Wild Burros

In the short- and long-term, wild burros would be removed from the natural ecological system and would not be available for public viewing.

Wildlife

Most SHS acres would improve to fair ecological condition under this alternative and a high percentage of acres would improve to good ecological condition. It is assumed that an increase in grass and a decrease in shrubs should result in an increase in both plant and animal diversity. Forage would be provided for the present numbers of big game with no provisions for population increases in both the short- and long-term.

Habitat loss would occur near population centers as a result of open ORV designations. The construction of 422 miles of road would eliminate 1,021 acres of various habitat sites. Big game could be affected in the long-term depending on the amount and type of use on the proposed roads. Factors detrimental to big game could also increase with new access, including animal-vehicle accidents and poaching.

Recreation

New vehicle access would result in improved recreational access and could result in increased interaction between recreational and nonrecreational users. The transfer of some lands into non-Federal ownership could affect the availability of some recreation opportunities to the general public.

Visual Resources

Visual contrasts would occur and would result in moderate long-term impacts to the area's visual quality.

Wilderness

The natural quality of the Brokeoff Mountains WSA and the former Little Dog Canyon WSA would be reduced by proposed rangeland improvements.

Cultural Resources

Trampling, rangeland improvements, land tenure adjustments, additional access, and open ORV designations could impact cultural resources by damaging sites, transferring sites out of Federal control, or increasing disturbance to sites.

Social and Economic Conditions

In the short-term, there would be an 8.5 percent reduction in livestock grazing from current levels (5-year average). Total receipts from ranching would decline by $341,902. Hired ranch labor would decline by 2 jobs. Total employment would decline by 5 jobs with employee compensation declining by approximately $49,000 in the Resource Area economy. Approximately $5 million would be expended for rangeland improvements. Employment levels in the Resource Area economy would increase by 98 jobs with an increase in employee compensation of $1.2 million.

In the long-term, there would be an overall increase in AUMs for total operations of approximately 28 percent from existing levels. Total receipts from ranching would increase by an estimated $1.1 million. Hired ranch labor would increase by an estimated 17 jobs with a corresponding increase in employee compensation of $117,243. The Resource Area Economy would experience an increase of 18 jobs with employee compensation increasing by $172,653. The lifestyles within the small communities, particularly the ranching lifestyle, would be ensured. The aspects which make the area an attractive place to live would not be significantly altered. If the 58,000 acres identified for land tenure adjustment are sold to private parties, the private ownership in the Resource Area would increase by 6.4 percent. If this occurred, estimated assessed valuation would be approximately $1.9 million and tax revenues would be approximately $30,971. Payments in lieu of taxes would not affect the Resource Area economy. The construction and maintenance of 422 miles of new roads would inject $8.6 million into the economy.

ALTERNATIVE III -- PROTECTION

The Protection Alternative objective is to emphasize maintaining or improving environmental values. Resource use and development would be permitted to the extent compatible with the environmental protection emphasis.

Major Components

Under the Protection Alternative, livestock forage would be reduced in the short-term including a 50 percent reduction in livestock use on 413,005 acres in poor ecological condition and a 25 percent reduction on 386,596 acres in fair ecological condition. In the long-term, projected livestock forage would be 130,115 AUMs. Construction of rangeland developments would include fences, pipelines, wells with pumps or windmills, several 20,000-gallon storage tanks, drinking troughs, earthen stock tanks, and one catchment. Watershed values would be improved on 73,601 acres of rangeland, while ORV use would be limited to existing roads and trails on the same 73,601 acres of rangeland. Forage would be provided for 12,588 mule deer and 1,666 pronghorn while the wild burro herd would be increased to 50 animals.

ORV use would be limited on 116,000 acres of McGregor Range north of State Road 506. Public land not designated as limited or closed to ORV use would be designated open. Approximately 280 acres of the Percha Creek riparian area would be fenced to eliminate livestock grazing, closed to ORV use, and designated NSO. A total of 92 40-acre study plot exclosures typifying each of the range sites and the pseudoriparian SHS in each ecological condition class represented would be fenced, closed to ORV use, and designated NSO. At Lake Holloman, 2,520 acres would be improved and protected while 1,360 acres would be fenced. In the Sacramento Escarpment area, 4,300 acres would be designated as an ACEC for visual resources. The ACEC would be closed to ORV use, withdrawn from locatable mineral entry, and an additional 1,000 acres designated NSO (in addition to the existing 3,300 acres designated NSO). ORV use would be limited to existing roads and trails on 15,490 acres of the Cornudas mountains, 7,779 acres of the Brokeoff Mountains, and 6,160 acres of the Cuchillo Mountains.

At the Three Rivers Petroglyph Site and Picnic Area, ORV use would be limited on 960 acres. An additional 740 acres would be fenced to eliminate livestock grazing on the 960-acre total area. The Rattlesnake Hill archaeologic district (640 acres) and the Alamo Mountain petroglyph area (340 acres) would be closed to ORV use and closed to future rangeland improvements. In addition, Alamo Mountain would be designated NSO. On 320 acres of the Lone Butte area, ORV use would be limited to existing roads and trails. In the Jarilla Mountains, 320 acres would be closed to ORV use.

Along well-preserved segments of the Butterfield and Jornada del Muerto Trails, no surface disturbing activities would be allowed in an area a 1/4 mile from each side. This would encompass total of 3,472 acres.

A total of 177,000 acres of public land would be considered for land tenure adjustment. This acreage would include those lands needed for community expansion, lands where an interest for disposal has been shown, potential exchange lands, and potential acquisition lands. Additional access would be provided to public land by constructing 135 miles of new roads and acquiring 30 miles of easements.

Environmental Consequences

Access

By constructing new roads or acquiring easements across non-Federal existing roads, access to public land would be guaranteed, resulting in fewer user complaints (of lack of access to public land) and an increase in the efficiency of managing public land.

Lands

Under the Protection Alternative, 8.5 percent of the public land in the Resource Area would no longer be available to BLM management. At the same time, up to 23,000 acres (1.25 percent) would be acquired (mostly for watershed).

Geology and Minerals

Impacts to leasable mineral exploration and development from the designation of Special Management Areas in areas of moderate to high mineral potential could be significant.

Soils

Under the Protection Alternative, soils would be disturbed on approximately 196 acres in the short-term and 38 acres in the long-term following construction of new rangeland developments. Concentration of livestock around new water facilities would disturb and compact medium and fine textured soils. Erosion condition would be improved where watershed treatments occur. Approximately 73,601 acres would be considered for watershed treatments.

On the 1,522,960 acres open to ORVs, medium and fine textured soils would be susceptible to compaction and the formation of ruts, especially when wet. On steep slopes, soils would be susceptible to accelerated erosion when soil structure is altered by unobstructed ORV use. Approximately 327 acres of soils would be disturbed during the construction of new roads.

Water Resources

Improved ecological condition and increased ground cover would decrease peak runoff rates an average of 14 percent in the long-term.

Water depletion by livestock, wildlife, and earthen stock tank evaporation would be approximately 390 acre-feet per year.

Watershed improvements on 73,601 acres would include both structural and land treatment measures to address the problems of flood and sediment damages. Primary objectives of the treatments would include reducing peak runoff rates, reducing sediment yields, improving water quality, and better on-site utilization of runoff water.

The fencing of the riparian area along Percha Creek to eliminate livestock use would improve channel stability of the stream in the long-term.

Vegetation

Short-term consumption of forage would be reduced approximately 10 percent from the 5-year average. Vegetation would be disturbed or destroyed on 196 acres in the short-term and destroyed on 38 acres in the long-term by construction of rangeland developments. Vegetation would improve on areas eliminated from livestock grazing for riparian habitat. Ground cover would increase in the long-term. Acreage in excellent, good, and fair ecological condition and good forage value class would increase in the long-term. Acreage in poor ecological condition and fair and poor forage value classes would decrease in the long-term. Acreage changes would be a result of proposed grazing management treatments, rangeland developments, and reduction in livestock numbers.

Livestock Grazing

Under the worst case situation, livestock grazing use would be reduced 29 percent below preference in the short-term. In the long-term, there would be a 12 percent decrease in AUMs below preference.

Wild Burros

In the long-term, 38 burros would be relocated to supplement the existing 12.

Wildlife

Changes in ecological condition for the SHS's would vary from 46 percent of the acres in the mesquite rolling upland to only a slight change from the mesquite sand dune SHS, improving by one ecological condition class. Increases from 10 pounds per acre to 18 pounds per acre of browse production as a result of the change in the ecological condition in the short-term would be sufficient for an optimum population of big game. However, production of preferred browse species would not be sufficient in the long-term.

If the ecological condition is improved, scaled quail habitat would improve which would provide for an increase in the population. Improvement of the ecological condition would result from the fencing of the riparian habitat along Percha Creek. Increase in food production for waterfowl would result from the fencing of the Lake Holloman area. Loss of abundant habitat types to BLM management would be insignificant, except riparian habitat. Less than 1 percent of the acreage in the Resource Area incorporates the riparian habitat. Public land would be lost to BLM management for the riparian habitat as well as a significant amount of pseudoriparian habitat, 300 deer, and 59 pronghorn, including the Nutt pronghorn herd unit.

Recreation

New vehicular access would result in insignificant improved recreational access and could result in a slight increase of interaction between recreational and nonrecreational users. Existing recreational values of the Sacramento Escarpment and the Three Rivers Petroglyph Site would be protected.

Visual Resources

Visual contrasts would occur and would result in moderate long-term impacts to the area's visual quality.

Cultural Resources

Land tenure adjustments and additional access could impact cultural resources by transferring sites out of Federal control or increasing disturbance to sites. Reducing trampling, improving erosion condition, fencing, and limiting ORV use would protect sites.

Social and Economic Conditions

In the short-term, ranching as a lifestyle in general would be threatened. Total receipts for all operations would decline by 15 percent. Returns to operator labor, management, and capital would decline by approximately 20 percent. The small cow-calf operation would suffer almost a 23 percent decrease in total herd size. Hired ranch labor would decline by 3 jobs and a corresponding decrease in employee compensation of $20,675. The $900,000 estimated for rangeland developments in the short-term could

increase employment in the Resource Area economy by 18 jobs and increase employee compensation by approximately $218,000.

In the long-term, total AUMs for all operations would remain at an overall level below the 5-year average and preference. Total receipts would be approximately 3.4 percent below existing levels. The 154,000 acres identified for land tenure adjustment have an estimated value for analysis purposes of $15.4 million. Private sale of these lands could add $5.1 million or 2.2 percent to total assessed valuation of the Resource Area economy and increase private ownership by 17.1 percent. The estimated potential tax revenues are $82,238 and the payment in lieu of taxes would not affect the Resource Area economy. The construction and maintenance of 135 miles of new roads would inject approximately $3.9 million into the economy.

ALTERNATIVE IV -- NO ACTION

The No Action Alternative objective would be to maintain a status quo through current management direction and existing land use plan decisions.

Major Components

Livestock use would be maintained at the current preference level of 147,916 AUMs. New rangeland improvements would be implemented on a request basis by permittees. Forage would continue to be provided for 5,955 mule deer and 731 pronghorn while the existing wild burro herd would remain at 12 animals. Current management for watershed would continue with maintenance of existing structures.

No new Special Management Areas would be designated while those already in existence would continue under current guidelines. All public land not currently designated as limited, closed, or open to ORV use would be managed as undesignated.

Annually, approximately 100 acres of public land would be considered for disposal. No new roads would be proposed, but easements would be acquired as needed.

Environmental Consequences

Soils

Under the No Action Alternative, current livestock use would continue. Medium and fine textured soils would continue to be compacted where livestock concentrate. Wind erosion would decrease slightly on areas where vegetation condition and ground cover improves, but would not be significant to the total erosion condition of the WSRA.

Medium and fine textured soils would be susceptible to compaction and formation of ruts by ORVs when soils are wet. Gravelly and cobbly soils become susceptible to accelerated erosion where unobstructed ORV travel

disturbs soils on steep slopes. Impacts by ORVs would remain primarily confined to populated areas of the WSRA.

Water Resources

No significant changes from the existing situation would occur concerning peak runoff rates, water quality, or water use by livestock and wildlife.

Vegetation

Acreage in fair and poor ecological condition would increase and acres in good ecological condition would decrease in the long-term. There are no acres in excellent condition. Acreage in fair and poor forage value classes would increase and acres in the good forage value class would decrease in the long-term. Acreage changes would be a result of the lack of vegetation treatments, grazing management treatments, and rangeland developments. Vegetation patterns would continue to change to brush-dominated areas without some vegetation treatment. Desirable perennial forage would have a small chance for recovery.

Livestock Grazing

Initial livestock grazing use would decrease in the long-term due to increased deterioration of rangeland condition, trend, and perennial forage production. Deterioration would be gradual; however, impacts from reduced livestock numbers on a voluntary basis could eventually become significant.

Wild Burros

Continuing present management would not significantly affect the wild burro population. The herd size would remain essentially unchanged. This would not be a significant short- or long-term impact. No action would be taken that would interrupt or change the migration or other movement of the wild burros.

Wildlife

There would be a decline in ecological conditions primarily in the rolling upland habitat types (including grass rolling upland) resulting in an increase in shrubs and shrub-associated species. This would result in a decline in preferred browse species and a small decline in big game populations. Without special designations of important habitat areas such as Percha Creek and Lake Holloman, no improvement would occur in these areas.

Cultural Resources

Sites would continue to be subject to trampling and other types of disturbance.

Social and Economic Conditions

Under the No Action Alternative, the economic structure of the Resource Area economy would not be affected. Any economic changes that would occur would not be due to factors related to this alternative. There would be no major adjustments in livestock grazing. Total receipts for livestock operations would not be adversely affected. The demographic characteristics in the Resource Area would not undergo any major changes. Local expenditures would continue to be made by individuals who use public land for recreation.

ALTERNATIVE V -- NO LIVESTOCK GRAZING

The objective of the No Livestock Grazing Alternative would be to eliminate livestock grazing from public land in the Resource Area.

Major Components

Livestock grazing would be eliminated on all public land. No new rangeland developments would be constructed for livestock and existing livestock developments would be abandoned or maintained only for nonlivestock resources. Forage would be provided for 12,588 mule deer and 1,666 pronghorn while the wild burro herd would be increased to 50 animals. Watershed values would be improved on 73,601 acres of rangeland.

Environmental Consequences

Access

Impacts on access to public land in the Resource Area would be low. Increasing mule deer and pronghorn might increase the need for access in areas specifically requested by hunters.

Soils

By removing livestock from public land, further livestock-related impacts to soils would be eliminated. No further soil compaction by livestock trailing or trampling would occur.

Soil erosion by water would be reduced as much as 20 percent on some sites where vegetation ground cover is increased and runoff is decreased. Wind erosion susceptibility would decrease slightly in some areas, but there would be no change in the wind erodibility groups of the soils.

Watershed treatments would improve erosion condition by eliminating further headcutting, improving soil stability, increasing vegetation ground cover, and decreasing soil loss. Approximately 73,601 acres of watersheds would be considered for treatments.

Water Resources

Peak runoff rates on key range sites would decrease an average of 18 percent in the long-term where vegetation cover increases a minimum of 5 percent. The reduced runoff would result in a decrease in dissolved solids and suspended sediments transported by runoff water.

Long-term water depletion by wildlife and earth stock tank evaporation would be approximately 216 acre-feet per year. Water consumption of approximately 165 acre-feet per year by livestock would be eliminated under this alternative.

Watershed improvements on 73,601 acres would include both structural and land treatment measures to address the problems of flood and sediment damages. Primary objectives of the treatments would include reducing peak runoff rates, reducing sediment yields, improving water quality, and better on-site utilization of runoff water.

Vegetation

Acreage in good ecological condition and good forage value class would increase in the long-term. Acreage in fair and poor ecological condition and fair and poor forage value classes would decrease in the long-term.

Livestock Grazing

Many livestock operators would be forced to liquidate, disperse their livestock, or obtain other lands for grazing to remain in business.

Wild Burros

Wild burro numbers would be increased to 50 head in the long-term.

Wildlife

Approximately 63 percent of the habitat sites in each SHS which are now in poor ecological condition would improve to fair and 21 percent of the sites in fair ecological condition would improve to good. This would result in increased diversity of plant and animal species. Increases would occur in some SHS's of preferred browse species composition, although there would be an overall decline in browse. Production of preferred browse species would be sufficient to provide for more than optimum big game populations.

Recreation

The elimination of livestock grazing could reduce vehicular access and increase nonmotorized recreation opportunities throughout the area. Interaction between recreational and nonrecreational users would be reduced.

Visual Resources

The apparent naturalness of portions of the area would increase slightly. There would be a slight increase in spring flowers, vegetation diversity, and the vigor and height of grasslands.

Wilderness

There would be improvement in the apparent naturalness, scenic qualities, and opportunities for solitude and primitive forms of recreation within the WSAs.

Cultural Resources

The impacts of livestock grazing on cultural resources would be eliminated.

Social and Economic Conditions

Under this alternative, those ranching operations which are heavily dependent on public land would be severely affected. Many operators and ranch hands would lose their identity and role of being associated with ranching as a lifestyle. For many, their psychological well-being would be diminished as well as losing an important part of their heritage. All livestock operations could be reclassified from their existing operations to the next lower size operation. Total receipts would be reduced by $2.3 million. Hired ranch labor would decline by 69 percent, which amounts to a decrease in ranch hand salaries of approximately $138,000. Total employment in the Resource Area economy would decline by approximately 41 jobs, with employee compensation declining by $394,000. Some operators and ranch hands may leave the livestock industry and seek nonranch jobs and other sources of income. Some may relocate to find suitable employment elsewhere.

SUMMARY OF ALTERNATIVES

Issue/Resource	Existing	Balanced Alternative I	Production Alternative II	Protection Alternative III	No Action Alternative IV	No Livestock Grazing[a] Alternative V
RANGELAND MANAGEMENT						
Livestock						
Forage (AUMs)						
Preference	147,916					
5-Year Average	135,261					
Short-Term		116,079	116,079	105,682	135,261 [b]	
Long-Term		181,864	191,003	130,115	135,261 [b]	
Rangeland Improvements[c]						none
Rangeland Developments						
Pipeline (miles)		56 3/4	65 1/4	64		
Fence (miles)		60	67 3/4	66		
Wells (number)		14	15	12		
Storage Tanks (number)		12	13	11		
Drinking Troughs (number)		37	38	35		
Earthen Stock Tanks (number)		9	9	9		
Catchments (number)		1	1	1		
Vegetation Treatments (acres)	none	62,720	149,093	none	none	none
Chemical		58,742	145,115			
Burning		2,381	2,381			
Seeding		1,597	1,597			
Grazing Systems	8 AMPs	I allotments and selected M allotments	All allotments (except Section 15's)	no new	no new	none
Wildlife						
AUMs Allotted	3,458 [d]					
Mule Deer		30,234	14,281	30,234	14,281	30,234
Pronghorn		2,852	1,247	2,852	1,247	2,852
Watershed Treatments (acres)	maintenance	62,586	62,586	73,601	maintenance	73,601
Wild Burros (AUMs)	144	144	-0-	600	144	600
SPECIAL MANAGEMENT AREAS						
Watershed Treatment Areas (acres)[e]		Limit ORV (62,586)		Limit ORV (73,601)		
Percha Creek Riparian Area (acres)[e]		Fence and limit ORV (280)		Fence, close to ORV, and designate NSO (280)		
Study Plot Exclosures (number)(acres)[e]		42--Fence and close to ORV (1,680)	3--Fence (120)	92--Fence, close to ORV, and designate NSO (3,680)		

SUMMARY OF ALTERNATIVES (Continued)

Issue/Resource	Existing	Balanced Alternative I	Production Alternative II	Protection Alternative III	No Action Alternative IV	No Livestock Grazing[a] Alternative V
SPECIAL MANAGEMENT AREAS (continued)						
Lake Holloman (acres)[e]		Eliminate livestock grazing (1,160)		Eliminate livestock grazing (2,520) and fence (1,360)		
Three Rivers Petroglyph Site and Picnic Area (acres)[e]	Under C&MU Act[f], 220 acres fenced[f], and limited ORV (interim)	Limit ORV (960)		Limit ORV (960) and fence (740)	Limit ORV (960) (interim)	
Rattlesnake Hill (acres)[e]	NSO[f] and limited ORV (interim)	Close to ORV (640)		Close to ORV and close to improvements (640)	Limit ORV (640) (interim)	
Sacramento Escarpment (acres)[e]	NSO (3,300)[f]	Designate ACEC, limit ORV, and designate additional NSO (3,640)		Designate ACEC, close to ORV, withdraw from mineral entry, and designate additional NSO (4,300)		
Alamo Mountain (acres)[e]	No drilling or storage facilities near cultural sites[f]	Designate NSO and close to ORV (200)		Designate NSO, close to ORV, and close to improvements (340)		
Lone Butte (acres)[e]		Limit ORV (100)		Limit ORV (320)		
Jarilla Mountains (acres)[e]		Close to ORV (120)		Close to ORV (320)		
Butterfield Trail and Jornada del Muerto Trail (acres)[e]		Limit surface disturbance (2,220) (1,252)		Limit surface disturbance (2,220) (1,252)		
McGregor Range (acres)[e]	Limited ORV (116,000) (interim)			Limit ORV (116,000)	Limit ORV (116,000) (interim)	
Cornudas Mountains (acres)[e]		Limit ORV (15,490)		Limit ORV (15,490)		
Brokeoff Mountains (acres)[e]	Wilderness Interim Management (31,386)[f]			Limit ORV (7,779)		
Cuchillo Mountains (acres)[e]				Limit ORV (6,160)		
ORV Use (acres)						
Open	-0-	1,667,134	1,752,830	1,522,960	-0-	
Limited	117,600	83,056	-0-	220,310	117,600	
Closed	-0-	2,640	-0-	9,560	-0-	
Undesignated	1,635,230	-0-	-0-	-0-	1,635,230	

SUMMARY OF ALTERNATIVES (Concluded)

Issue/Resource	Existing	Balanced Alternative I	Production Alternative II	Protection Alternative III	No Action Alternative IV	No Livestock Grazing[a] Alternative V
LAND TENURE ADJUSTMENT (acres)	100 annually	45,000	58,000	177,000	100 annually	
Isolated and Difficult to Manage	x	x	x		x	
Lands Needed for Community Expansion	x	x	x	x	x	
Potential Exchange Lands	x			x	x	
Potential Acquisition Lands				x	x	
Land Where Interest Has Been Shown	x	x	x	x	x	
ACCESS						
Roads (miles)	-0-	238	422	135	-0-	
Easements (miles)	as needed	36	66	30	as needed	

Source: BLM Las Cruces District Office Files, 1984.

Notes: a/The No Livestock Grazing Alternative does not apply to the Special Management Areas, Land Tenure Adjustment, or Access issues.
b/An unknown amount of AUMs less than the 5-year average.
c/Under the No Action Alternative, rangeland improvement implementation would be on a request basis.
d/Existing AUMs allotted as shown in BLM case files. For analytical purposes, New Mexico Department of Game and Fish numbers were used.
e/For Alternatives I, II, and III, ORV use is "open" where blank or not designated as limited or closed. For Existing and Alternative IV, ORV use is undesignated where blank or not designated limited.
f/Common to all alternatives.
x -- Indicates which proposals are being considered under each alternative.

SUMMARY OF IMPACTS

	Existing	Balanced Alternative I		Production Alternative II		Protection Alternative III		No Action Alternative IV		No Livestock Grazing Alternative V	
		Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term
LANDS											
BLM Ownership	NS	NS	-2.5%	NS	-3.25%	NS	-8.5% +1.25%[a]	NS	NS	NS	NS
ACCESS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GEOLOGY AND MINERALS	NC	-	-	NS	NS	-	-	NS	NS	NS	NS
Mineral Exploration and Development											
SOILS											
Sediment Yield	NC	NS	+	NS	+	NS	+	NS	NS	NS	+
WATER RESOURCES											
Runoff	NC	NS	-15%	NS	-17%	NS	-14%	NS	NC	NS	-18%
Quality											
Surface	stable	NS	+	-	+	+	+	NS	NS	+	+
Subsurface	stable	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Depletion (acre-feet/year)											
Livestock, Wildlife, and Evaporation	380	388	450	359	462	327	390	NC	NC	215	216
VEGETATION											
Ecological Condition (acres)											
Excellent	0	0	17,900	0	28,707	0	8,950	0	0	0	0
Good	138,216	138,216	227,063	138,216	295,227	138,216	337,781	138,216	69,746	138,216	448,499
Fair	386,596	386,596	470,653	386,596	481,643	386,596	403,876	386,596	433,242	386,596	337,099
Poor	413,005	413,005	222,201	413,005	132,240	413,005	187,210	413,005	434,829	413,005	152,219
Forage Value Condition (acres)											
Good	422,239	422,239	535,922	422,239	565,406	422,239	572,546	422,239	328,414	422,239	609,214
Fair	252,401	252,401	215,180	252,401	272,138	252,401	200,528	252,401	335,345	252,401	185,831
Poor	263,177	263,177	186,715	263,177	100,273	263,177	164,743	263,177	274,058	263,177	142,772
Ground Cover	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Threatened or Endangered Plant Species	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
LIVESTOCK GRAZING											
Stocking Levels (AUMs)	147,916[b]	116,079[c]	181,864	116,079[c]	191,003	105,682[c]	130,115	147,916[b]	147,916	0[d]	0
WILD BURROS (number)	12	12	12	0	0	12	50	12	12	12	50

SUMMARY OF IMPACTS (Continued)

	Existing	Balanced Alternative I		Production Alternative II		Protection Alternative III		No Action Alternative IV		No Livestock Grazing Alternative V	
		Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term
WILDLIFE											
AUMs Allotted[e/]	3,458[f/]										
Mule Deer (AUMs)		14,281(NC)	30,234(-)	14,281(NC)	14,281(-)	14,281(+)	30,234(-)	14,281(-)	14,281(-)	14,281(+)	30,234(+)
Pronghorn (AUMs)		1,247(NC)	2,852(-)	1,247(NC)	1,247(-)	1,247(+)	2,852(-)	[1,247(-)	[1,247(-)	[1,247(+)	2,852(+)
Production of Preferred and Intermediate Browse Species (pounds per acre)	5.2	5.2	5.9	5.2	6.4	5.2	6.4	5.2	4.8	5.2	6.9
Change in Ecological Condition of Standard Habitat Sites[g/]	N/A	MC	+21-1%	MC	+28-3%	MC	+46-1%	MC	-7-0%	MC	+63-21%
Threatened or Endangered Fauna Species	NC	+	+	-	-	+	+	-	-	+	+
Riparian Areas	NC	+	+	+	+	+	+	-	-	+	+
RECREATION											
Recreation Opportunities	stable	+/-	+/-	-	-	+	+	NS	NS	+	+
Recreational Use	stable	+	+	+	+	NS	NS	NS	NS	NS	NS
VISUAL RESOURCES	stable	+/-	+/-	-	-	-	-	NS	NS	+	+
WILDERNESS	stable	-	-	[-	[-	NS	NS	NS	NS	+	+
CULTURAL RESOURCES											
Disturbance Due To:											
Trampling	SI	NC	I	NC	I	O	SD	NC	NC	D	D
Erosion	NC	NC	D	NC	D	D	O	NC	NC	SD	D
ORVs	NC	[NC	[NC	[SI	[SI	[SD	[SD	NC	NC	NC	NC
ECONOMIC CONDITIONS (dollars)											
Total Receipts	3,420,807	3,078,905	4,374,735	3,078,905	4,487,896	2,911,151	3,303,978	3,420,807	3,420,807	1,140,011	[1,140,011
Change	NC	-341,902	953,928	-341,902	1,067,089	-509,656	-116,829	NC	NC	-2,316,796	-2,316,796
Variable Costs	1,712,575	1,435,178	1,932,833	1,435,178	1,988,158	1,351,322	1,542,176	1,712,575	1,712,575	521,090	521,090
Change	NC	-277,397	220,258	-277,397	275,583	-361,253	-170,399	NC	NC	-1,191,485	-1,191,485
AUM Costs	357,150	325,235	451,518	325,235	463,275	307,025	349,200	357,150	357,150	119,817	119,817
Change	NC	-31,915	14,368	-31,915	106,125	-50,125	-7,950	NC	NC	-237,333	-237,333
Returns Above Variable Costs	1,351,082	1,318,492	1,990,384	1,318,492	2,036,463	1,252,804	1,412,602	1,351,082	1,351,082	463,104	463,104
Change	NC	-32,590	639,302	-32,590	685,381	-98,278	61,520	NC	NC	-887,978	-887,978
Fixed Costs[h/]	245,980	245,980	245,980	245,980	245,980	245,980	245,980	245,980	245,980	245,980	245,980
Depreciation[h/]	618,574	618,574	618,574	618,574	618,574	618,574	618,574	618,574	618,574	618,574	618,574
Returns to Operator Labor, Management, and Capital	486,528	453,938	1,125,830	453,938	1,171,909	388,250	548,048	486,528	486,528	-401,450	-401,450
Change	NC	-32,590	639,302	-32,590	685,381	-98,278	61,520	NC	NC	-887,978	-887,978

SUMMARY OF IMPACTS (concluded)

	Existing	Balanced Alternative I		Production Alternative II		Protection Alternative III		No Action Alternative IV		No Livestock Grazing Alternative V	
		Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term	Short-Term	Long-Term
ECONOMIC CONDITIONS (dollars) (continued)											
Hired Ranch Labor (jobs)	29	27	45	27	46	26	29	29	29	9	9
Change	0	-2	16	-2	17	-3	0	0	0	-20	-20
Ranch Labor, Wages, and Salaries (dollars)	203,763	191,044	315,350	191,044	321,006	183,089	203,984	203,763	203,763	66,118	66,118
Change	0	-12,719	111,587	-12,719	117,243	-20,674	221	0	0	-137,645	-137,645
Estimated Fair Market Value (Lands) (dollars)	N/A	NC	4,500,000	NC	5,800,000	NC	15,400,000	NC	10,000	N/A	N/A
Estimated Assessed Valuation (Lands)	N/A	NC	1,499,850	NC	1,933,333	NC	5,132,820	NC	3,333	N/A	N/A
Estimated Potential Tax Revenue (Lands)	N/A	NC	24,031	NC	30,971	NC	82,238	NC	53	N/A	N/A
Construction and Maintenance (Access)											
Roads (miles)	N/A	NC	238	NC	422	NC	135	NC	NC	N/A	N/A
Cost (dollars)	N/A	NC	6,207,000	NC	8,600,000	NC	3,900,000	NC	NC	N/A	N/A

Source: BLM Las Cruces District Office Files, 1984.

Notes: a/Reflects land acquisition by the BLM.
b/This figure is preference. Actual stocking would be closer to the 5-year average of 135,261 AUMs.
c/Estimated worst-case allocation. The monitoring studies would be used to determine actual levels of livestock use.
d/All AUMs would be available for big game.
e/AUM numbers followed by a (-) means that the vegetation inventory data indicate browse production may be insufficient while a (+) means that browse production would be more than sufficient for the big game numbers indicated.
f/Existing AUMs allotted as shown in BLM case files.
g/Indicates a range of change to the next higher ecological condition class. Under the Balanced Alternative, 21 percent of an unspecified SHS would change on the high end while only 1 percent of another SHS would improve on the low end.
h/Fixed costs and depreciation costs are assumed to remain constant.
I -- Increase.
D -- Decrease.
MC -- Minor Change.
N/A -- Not Applicable.
NC -- No Change.
NS -- Not Significant.
SD -- Slight Decrease.
SI -- Slight Increase.
\+ -- Beneficial impact.
\- -- Negative impact unless otherwise noted.

TABLE OF CONTENTS

Page

PROPOSED PLAN FOR THE WHITE SANDS RESOURCE AREA

HOW THE PROPOSED PLAN WAS SELECTED 1
DESCRIPTION OF THE PROPOSED PLAN 1
Objective 1
Rangeland Management 1
Special Management Areas 4
Land Tenure Adjustment 6
Access 7
CONSISTENCY OF THE PLAN 8
IMPLEMENTATION, MONITORING, AND EVALUATION OF THE PLAN 8

PUBLIC PARTICIPATION AND COORDINATION

INTRODUCTION 11
PUBLIC PARTICIPATION 11
SECTION 7 CONSULTATION 16
PUBLIC REVIEW OF THE DRAFT RMP/EIS 16
Congressional Delegation and New Mexico State Legislators . . 17
New Mexico State Agencies 17
Federal Agencies 17
Local and Regional Governments, Agencies, and Indian Tribes . 17
Livestock-Related Organizations 18
Conservation Organizations 18
Other Organizations 18
Other Groups 19
Universities and Libraries 19
HEARINGS 19
COMMENTS AND RESPONSES 19

MODIFICATIONS AND CORRECTIONS TO THE DRAFT RMP/EIS

INTRODUCTION 111
ERRATA 111
CHAPTERS 111
TABLES 113
APPENDICES 113
TECHNICAL REPORTS 113
CHANGES TO THE TEXT 114
ADDITIONS TO THE DRAFT RMP/EIS
Appendix E Wildlife - Biological Assessment and Biological Opinion 135

TABLES

Table Page

1 List of Preparers 12
2 Comment Letters Received 20

TECHNICAL REPORTS

[Technical Reports are available for review at the Las Cruces District Office.]

I. ACEC MANAGEMENT PLAN

Sacramento Escarpment Scenic Area

II. PREVIOUS LAND USE PLAN DECISIONS/DECISION RECORDS

1. Southern Rio Grande Management Framework Plan

2. Southern Rio Grande Planning Area Rangeland Program Summary

3. Mesa Management Framework Plan

4. McGregor Range Rangeland Management Program Document

5. Minerals Decisions
   White Sands Resource Area Oil and Gas Decision Record
   Oil and Gas and Geothermal Leasing
   Mineral Material Disposal
   Lands Withdrawn from Mineral Entry
   Areas of Critical Mineral Potential

III. VEGETATION

1. Grazing Management Considerations for the White Sands Resource Area/Utilization Criteria for Important Forage Species

2. Phenology of Important Forage Species in the White Sands Resource Area

3. Label Information for Herbicides Proposed for Use in the White Sands Resource Area
   Dicamba — Triclopyr
   Picloram — Tebuthiuron

IV. LIVESTOCK GRAZING

Present and Proposed Forage Use by Land Ownership

V. ECONOMIC CONDITIONS

1. Detailed Methodology for Developing the Ranch Budgets for Each Ranch Size Category

2. Regional Analysis Using U.S. Forest Service IMPLAN Model

3. Detailed Methodology for Linear Analysis

VI. WILDLIFE

Biological Assessment

PROPOSED PLAN FOR THE WHITE SANDS RESOURCE AREA

PROPOSED PLAN FOR THE WHITE SANDS RESOURCE AREA

HOW THE PROPOSED PLAN WAS SELECTED

The Proposed Plan was selected by a team composed of the District Manager, Area Manager, Team Leader, and appropriate team specialists. It was reviewed by the State Director. It was selected based on (1) issues raised throughout the planning process, (2) public input received during the formal 90-day comment period and at meetings and hearings, (3) planning criteria used to evaluate alternatives, and (4) the environmental analysis developed on the previously formulated alternatives. A description of the alternatives is contained in the Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS). The Proposed Plan also includes the guidance contained in the Management Guidance Common To All Alternatives section of the Draft (see Draft page 2-12).

DESCRIPTION OF THE PROPOSED PLAN

This section describes for each issue the specific proposed management actions and the rationale for those actions. The Proposed Plan is a modified version of the Preferred Alternative presented in the Draft RMP/EIS. Changes to the Preferred Alternative include the addition of 140,954 acres from the Protection Alternative where ORV use will be limited to existing roads and trails and the incorporation of the potential exchange and acquisition lands from the Protection Alternative. Also, the proposal to make the wild burro herd available for adoption was selected from the Production Alternative. In addition, a plan of action to establish procedures and priorities for conducting a 10 percent Class II cultural resource inventory and initiate fieldwork to accomplish this goal for the White Sands Resource Area (WSRA) was added to the Management Guidance Common To All Alternatives (see revised Draft page 2-25, in the Modifications and Corrections Section). To aid in comparing the Proposed Plan to the Preferred Alternative, the modified wording has been underlined. A II (Production) or III (Protection) following the modification indicates what portion of each of the alternatives has been incorporated into the Proposed Plan.

Objective

The objective of the Proposed Plan is to enhance multiple use resource values in accordance with current BLM policy. It provides for a mix of needed goods and services while protecting important and sensitive environmental values.

Rangeland Management

Proposed Management Actions

1. A rangeland management program will be initiated on 67 allotments covering 879,858 acres that have a high potential for improvement

and resolution of resource conflicts (Category I allotments) or improvement of wildlife habitat (selected M allotments). (See Appendix D-1 of the Draft.) The initial livestock forage use would be mutually agreed upon, if possible, between the permittees and BLM and could be up to preference. If agreement cannot be reached, the decision issued will be for preference numbers. If adjustments in livestock numbers are found to be necessary through monitoring studies, decisions would be issued stating what changes would be needed. These could be implemented over a 5-year period following the issuance of the decision. Following consultation with the permittee, BLM would establish the following:

-- proper level of forage utilization
-- initial stocking rate;
-- the kind of livestock allowed;
-- the period of use;
-- areas to be excluded from livestock grazing; and
-- the initial allotment of forage to big game species.

At the end of the monitoring period, the BLM would establish:

-- proper stocking rate;
-- grazing treatments; and
-- rangeland developments and vegetation treatments necessary to properly manage the renewable resources of the Resource Area.

It is assumed that initial authorized livestock grazing use on all allotments would approximate the 5-year average (135,261 AUMs) and not exceed preference (147,916 AUMs). There are presently 8 allotments (127,678 acres) with existing Allotment Management Plans (AMPs) approved prior to 1975. All allotments have prescribed grazing systems; the management plans for these allotments will continue. The past 5-year (1979-1983) average licensed grazing use indicates that 135,261 AUMs of forage were authorized for use by livestock annually on public land in Otero and parts of Lincoln, Eddy, and Chaves Counties. This information will be used as a basis for negotiating initial livestock grazing use. However, information indicates that a lower level of livestock grazing use may be more appropriate in some areas in fair and poor condition.

Following completion of the Final RMP, a Rangeland Program Summary (RPS) outlining the rangeland management program will be written and distributed to the public. For the remaining Category M and C allotments where no changes in management or livestock numbers are anticipated, a letter of decision will be issued within 6 months after the RPS is issued. Before adverse decisions are made, each adversely affected permittee will be contacted and the "Section 8" Rangeland Consultation Policy (see Appendix D-2 of the Draft) will be followed.

Where information is lacking or if an agreement cannot be reached, an allotment-specific monitoring program will be initiated for a period of up to 5 years. If monitoring studies show a need for adjustments, a second decision will be issued which sets forth the adjustment to be implemented over a 5-year period. The 5-year adjustment will be phased in with equal

reductions or increases being put into effect during the first, third, and fifth year. An evaluation of the allotment will be made prior to implementing the third and fifth year adjustment. Decisions initiating monitoring studies would be issued as funding became available to initiate the studies. The 5-year adjustment period can be waived if an agreement is reached with the permittee to implement the decision in less than 5 years or the total suspension is 15 percent or less of the authorized active grazing use for the previous year.

Since there is a possibility that livestock grazing use may be adjusted to an unknown level below the 5-year average use, a lower level of grazing use of approximately 118,631 AUMs was used for analytical purposes. The projected lower level, or worst-case, was determined only for allotments in the Improve (I) Category. (See Appendix D-3 of the Draft for criteria used in designating categories.) It was assumed that no adjustments would be needed on areas in good to excellent ecological condition, a 20 percent downward adjustment on areas in fair condition, and a 35 percent downward adjustment on the areas in poor condition. (Appendix D-4 of the Draft contains acres of ecological condition by allotment.) These adjustment figures for the poor and fair conditions may reflect resource conflicts.

All allotments proposed for Category I and selected Category M allotments will be monitored. (See Appendix D-1 of the Draft, Proposed Management Categories by Allotment.) The number and frequency of studies per allotment will be determined by local conditions and BLM's budgetary constraints. The remaining allotments proposed for Categories M and C will be inspected periodically to determine if resource values are changing.

Through chemical vegetation treatment on 58,742 acres, forage production will increase by 6,017 AUMs (from 147,916 AUMs to 153,933 AUMs) in the long-term (20 years). In addition, prescribed burning is planned for 2,381 acres and seeding is planned for 1,597 acres. (See Map 2-1 of the Draft for location of vegetation treatments and Appendix C-1 of the Draft for acres treated by allotment.) Livestock grazing systems will be developed in cooperation with the livestock operator on Category I allotments. (See Draft page 2-18.) It is estimated that the following rangeland developments will be constructed in the short-term (see Appendix D-5 of the Draft): 56 3/4 miles of pipeline, 60 miles of fence, 14 wells with pump or windmill, 12 storage tanks (20,000 gallons each), 37 drinking troughs, 9 earthen stock tanks, and 1 catchment. In the long-term (20 years), projected livestock forage will be 181,864 AUMs as a result of vegetation treatments, grazing management treatments, and rangeland developments.

2. Forage will be provided for 12,588 mule deer and 1,666 pronghorn (optimum numbers) in herd unit areas in the long-term (30,234 and 2,582 AUMs, respectively, for a total of 33,086 AUMs). This will be an increase from the current 5,955 mule deer (14,281 AUMs) and 731 pronghorn (1,247 AUMs).

3. Watershed activity plans will be developed on 73,601 acres (III) in the following areas (see Map 2-5 of the Draft): (a) Wind and Chess Draws in the Cornudas Mountains, (b) Moccasin and Otto Draws southwest of

Pinon, (c) unnamed watershed east of Tularosa and south of the Tularosa River, (d) Three Rivers watershed north of Tularosa, and (e) east of Crow Flats (III). The primary objectives of the watershed treatments will be to improve watershed values by reducing peak runoff rates, reducing sediment yields, improving water quality, and receiving better on-site utilization of runoff in the long-term.

4. The entire wild burro herd will be captured and made available for adoption. (II)

Rationale

Through consultation with the permittees and monitoring, the BLM will be able to determine the proper stocking rate, grazing treatments, rangeland developments, and vegetation treatments to effectively achieve the goals and objectives of the RMP. The management categories help intensify management and rangeland development efforts on these allotments with the most potential for improvement and resolution of conflicts. Rangeland developments will be needed to achieve better livestock distribution patterns, to improve rangeland conditions, and to protect areas which have high values for other resources. Vegetation treatments will be needed to remove competing undesirable vegetation.

The Proposed Plan will maintain or enhance wildlife habitat condition in areas where forage production is a limiting factor through land treatment. Ecological condition will improve; however, vegetation treatment will be needed in creosotebush and mesquite habitats. With a decrease in the shrub component and an increase in grass, plant and animal diversity will increase. With improvement in ecological condition, production of preferred food species will increase, which will permit an increase in populations of deer and pronghorn as well as small game.

The Proposed Plan will improve eroded watershed areas and take measures to prevent areas from becoming critically eroded. Watershed improvement will be needed to achieve a reduction in peak runoff rates, a reduction in sediment yield, improved water quality, and better on-site utilization of runoff water in the long-term.

The burro herd is small and not considered to be a genetically viable herd. A Herd Management Area Plan would be unfeasible since land status is so diversified. The removal of the burros will slightly increase vegetation densities, reproduction, and productivity.

Special Management Areas

Proposed Management Actions

1. Limit off-road vehicle (ORV) use to existing roads and trails on 73,601 acres (III) of rangeland for protection of watershed values. Watershed activity plans will be developed for the following areas (see Map 2-5 of the Draft): (a) Wind and Chess Draws in the Cornudas Mountains, (b) Moccasin and Otto Draws southwest of Pinon, (c) unnamed watersheds east of Tularosa and south of the Tularosa River, (d) Three Rivers watershed north of Tularosa, and (e) east of Crow Flats. (III)

2. Improve and protect the riparian area along Percha Creek (280 acres) for wildlife habitat, watershed values, recreation, and visual quality. Monitor riparian habitat condition and develop management objectives and planned actions for a Habitat Management Plan. Limit ORV use to existing roads and trails.

3. Designate 42 40-acre study plot exclosures, 1 for each of the 41 range sites and pseudoriparian standard habitat site in Otero and Sierra Counties (1,680 acres). Fence the study plots from livestock (42 miles of fence) and close to ORV use. No allotment will have more than one exclosure.

4. Improve and protect Lake Holloman and adjacent lands (1,160 acres) as a high use area for waterfowl and shore birds. Eliminate livestock grazing.

5. Limit ORV use to existing roads and trails for the Three Rivers Petroglyph Site and Picnic Area (960 acres). Amend the Three Rivers Management Plan to fence an additional 120 acres (for a total of 340 acres) from livestock grazing.

6. Designate the Rattlesnake Hill archaeological district (640 acres) closed to ORV use and closed to future rangeland improvements (III) for protection of cultural resources.

7. Designate 3,640 acres of the Sacramento Escarpment as an Area of Critical Environmental Concern (ACEC) for visual resources. A Sacramento Escarpment ACEC management plan has been developed. The objectives of the plan are to enhance, protect, and prevent irreparable damage to the scenic and recreational values of the Escarpment. The complete text of the management plan is contained in Technical Report I, which is available for review in the White Sands Resource Area (WSRA) Office. (Technical Reports contain background information or supporting data for the RMP/EIS. A list of Technical Reports available is contained in the Table of Contents in this Final RMP/EIS). The ACEC will be managed as a Visual Resource Management (VRM) Class I and ORV use will be limited to designated roads and trails. In addition to the existing 3,270 acres designated No Surface Occupancy (NSO), an additional 370 acres will be designated NSO (for a total of 3,640 acres).

8. Designate the Alamo Mountain petroglyphs area (200 acres) NSO and closed to ORV use for protection of cultural resources.

9. Limit ORV use to existing roads and trails for Lone Butte area (100 acres) for protection of cultural resources.

10. Designate a portion of the Jarilla Mountains (120 acres) closed to ORV use for protection of cultural resources.

11. No surface disturbing activities would be allowed in an area 1/4 mile from each side of well-preserved segments of the Butterfield and Jornada del Muerto Trails on public land (2,220 and 1,252 acres, respectively).

12. Limit ORV use to existing roads and trails for McGregor Range north of State Road 506 (116,000 acres) for protection of watershed resources. (III)

13. Limit ORV use to existing roads and trails for the following areas for protection of visual resources: Brokeoff Mountains (7,779 acres) (III), Cornudas Mountains (15,490 acres), and Cuchillo Mountains (6,160 acres). (III)

14. For public land not designated as limited or closed, designate open to ORV use. The total acreage for each ORV designation for the Proposed Plan will be: Open, 1,526,180 acres; Limited, 224,010 acres; and Closed, 2,640 acres.

Rationale

Certain areas warrant special management because of their unusual, historic, cultural, recreational, or scenic value; their natural systems or processes; and their significance and special worth, consequences, meaning, distinctiveness, or cause for concern.

ORV designations will limit ORV use on 224,010 acres to existing roads and trails and close 2,640 acres to ORV use to protect watershed, wildlife, nonmotorized recreation, visual, vegetation, and cultural values. Public comment on the Draft included several letters expressing concern about the possible adverse impacts of ORV use in the WSRA. (See Comment Letters 14, 19, 22, 26, 27, 28, 29, 30, and 32.) The Preferred Alternative from the Draft was modified to include an additional 140,954 acres from the Protection Alternative where ORV use will be limited to existing roads and trails. Areas added for limited ORV use are the watershed area east of Crow Flats, McGregor Range north of State Road 506, the Brokeoff Mountains, and the Cuchillo Mountains. ORV use in the entire White Sands Resource Area will continue to be monitored for protection of the resources, promotion of the safety of all users, and minimization of conflicts among various users.

A high level of concern was expressed in the public comments (letters 19, 22, 27, and 29) on the Draft regarding the amount of cultural resource data available for analyzing impacts of the RMP decisions. To improve that data base, BLM will begin a plan of action to establish procedures and priorities for conducting a 10 percent Class II cultural resource inventory and will initiate fieldwork to accomplish this goal.

Land Tenure Adjustment

Proposed Management Actions

Consider for land tenure adjustment the following lands (184,000 acres) (23,000 to be acquired and 161,000 to be disposed):

-- Isolated and difficult to manage parcels. (See Appendix A-1 and Visuals E and F of the Draft.)
-- Lands needed for community expansion and public purposes.

-- Lands where interest has been shown, including lands identified by the State of New Mexico for possible exchange.
-- Potential acquisition lands (23,000 acres). (See Appendix A-3 of the Draft. (III)
-- Potential exchange lands. (See revised Draft Map 2-6, in the Modifications and Corrections Section.) (III)

Lands suitable for disposal will be considered for such public purpose values as community expansion and private sale. All forms of disposal will be considered, including exchanges. An Environmental Assessment (EA) will be made for each disposal action, on a site-by-site basis. All resource values will be considered during the EA process. No critical resources will be allowed to enter the private sector. New rangeland developments, vegetation treatments, and access will not be proposed in land tenure adjustment areas. Public land not identified for disposal will be retained in BLM ownership, except that within the retention areas, only those parcels which will enhance overall consolidation of public land will be considered for exchange.

Rationale

Identification of lands which might be suitable for disposal is a current management concern. Those areas within the Resource Area that contain isolated parcels of land that are difficult and uneconomical to manage have been identified. Other considerations are areas where disposal will serve important public objectives. These include, but are not limited to, expansion of communities as needed for economic development which could not be achieved prudently or feasibly on land other than public land. Exchanges are also considered. Consolidation of lands into larger blocks of public land will enhance BLM's ability to manage the lands for multiple-use values and to resolve and prevent conflicts.

A program to consolidate both the State's and BLM's landholdings is currently being worked on and will be further developed over the next few years.

Acquisition of selected lands would improve the manageability of the Sacramento Escarpment ACEC, the Three Rivers Petroglyph Site and Picnic Area, and watersheds needing rehabilitation.

Public comment on the Draft favored including land exchange in the Proposed Plan. The Las Cruces District Advisory Council, in Comment letter 9, recommended that the Protection Alternative be selected as the BLM's preferred choice for the Land Tenure Adjustment issue. The State of New Mexico, in Comment letter 29, supports the goal of consolidating public landholdings and suggests that some of the consolidation be done by trading State sections for BLM sections. This could best be accommodated by a combination of the Balanced and Protection Alternatives. Likewise, the New Mexico Natural History Institute in Comment letter 30, favors State and BLM land ownership blocking by way of exchanges.

Access

Proposed Management Actions

In order to accommodate more than the minimum necessary to meet BLM's multiple-use responsibilities, legal access will be provided to most of those public lands which currently have none, and roads will be provided across most of those public lands which currently have none.

This will be accomplished by acquiring easements on 36 miles of existing non-Federal roads (of which, 16 miles will be improved to include grading and drainage). In addition, 238 miles of new roads will be constructed (of which, 70 miles will be built to primary road standards, and 168 miles built to secondary road standards). (See Draft Map 2-2.)

Rationale

Development of access to areas of public land, especially those having significant resource or recreation values for which there is high demand and no legal access, is a management concern. In areas where there is mixed private, State, and Federal land ownership, some of the roads on public land are accessible only by traveling across roads on non-Federal lands. It is conceivable that, in situations where the roads across non-Federal lands are not considered to be "public domain" roads (i.e., are not maintained by the county or State, or considered to be public thoroughfares due to a history of established use), the non-Federal landowner could block access to both BLM and the public. This could result in public land being isolated from public use and BLM management activities.

By constructing new roads or acquiring easements across non-Federal existing roads, access to public land will be guaranteed, resulting in fewer user complaints (of lack of access to public land) and an increase in the efficiency of managing public land.

CONSISTENCY OF THE PLAN

There are no known inconsistencies between the Proposed Plan and officially approved and adopted resource-related policies and programs of other Federal agencies, State and local governments, and Indian tribes.

IMPLEMENTATION, MONITORING, AND EVALUATION OF THE PLAN

A record of decision (ROD) will be issued following publication of this final environmental impact statement (EIS) on the proposed resource management plan (RMP). Included with the ROD will be the Final White Sands RMP. It will also contain implementation and monitoring criteria.

The implementation criteria will guide the order in which decisions are implemented. The implementation priorities will be established following plan completion and approval. The criteria will be tied to the budget process and will be applied annually to determine the sequence for implementation based on priorities set by the Area Manager.

The effects of implementing the White Sands RMP will be monitored and evaluated on a yearly basis, with certification of the Plan during the fifth year, to inform resource managers and the public of the progress of the Plan. The results being achieved under the Plan will be compared with Plan objectives.

Monitoring and evaluation will help the resource managers:

-- to determine whether an action is accomplishing the intended purposes;
-- to determine whether mitigating measures are satisfactory;
-- to determine if the decisions in the Plan are being accomplished;
-- to determine if the related plans of other Federal agencies or State and local governments or Indian tribes have changed resulting in an inconsistency with the RMP;
-- to identify any unanticipated or unpredictable effects;
-- to identify new data of significance to the Plan.

Monitoring will also help to establish long-term use and resource condition trends for the Resource Area and will provide valuable information for future planning.

PUBLIC PARTICIPATION AND COORDINATION

PUBLIC PARTICIPATION AND COORDINATION

INTRODUCTION

This chapter summarizes the public participation, consultation, and coordination conducted in preparation of the Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) and Final RMP/EIS. In the course of preparing these documents, formal and informal efforts have been made to involve the public, other Federal agencies, and State and local governments in the planning process. Several points of public involvement are mandated by regulations and were complied with, but numerous other actions were taken to further involve the public. The RMP/EIS was prepared by an interdisciplinary team of resource specialists from BLM's White Sands Resource Area and the Las Cruces District. A list of persons involved in preparation of the RMP/EIS is provided in Table 1.

PUBLIC PARTICIPATION

The planning process began in August 1983 with publication of a Notice of Intent to prepare a Resource Management Plan and invitation to participate in the identification of issues in the Federal Register (Volume 48, No. 164, Tuesday, August 23, 1983, pages 38313-38314).

From August 1983 to September 1984, six news releases referring to the planning process were printed in various Statewide media. In addition, the plan was highlighted in two issues of the District newsletter sent to a mailing list of over 800.

On November 1, 1983, a booklet was sent to approximately 700 individuals, agencies, units of local government, organizations, and members of private industry. Included in the booklet was a brief overview of the planning process as well as a description of management and resource concerns which had been identified by the BLM. The public was asked to look carefully at the issues described in the booklet and present their comments to the District by November 30, 1983. A postage-paid comment/response form was provided with the booklet for the convenience of those who wanted to respond. Eight letters were received by the District in response to the call for comment. The letters included three from government agencies, three from private industry, and two from organizations. In response to the booklet, 45 individuals, groups, or agencies returned the comment form with official comments. Thirty-six returned the form with no comment, but indicated a desire to remain on the mailing list. Four returned the form requesting that they be removed from the mailing list.

In addition to sending the booklet, the District held two public meetings. The first was on November 8, 1983, at the Media Center, New Mexico School for the Visually Handicapped, Alamogordo, New Mexico. The

TABLE 1
LIST OF PREPARERS

Name	RMP Responsibility	Education	Experience
Willis M. Bird, Jr.	Team Leader	B.A., Wildlife Management New Mexico State University	BLM 13 yrs. - Multi-Resources Staff Chief District Wildlife Biologist Resource Area Wildlife Biologist Recreation Technician
Bill Gilbert	Technical Coordinator	B.S., Biology University of Nebraska	BLM 8 yrs. - Natural Resource Specialist
Bruce G. Call	Soils	B.S., Agriculture (Range and Soil Science) New Mexico State University	BLM 6 yrs. - District Soil Scientist Range Conservationist Range Technician USFS 6 mos. - Soil Technician Forestry Technician
Ira Craig	Lands, Access	B.A., English University of Maryland Professional Resource Management (Lands) Phoenix Training Center	BLM 4 yrs. - Realty Specialist
Tom Custer	Geology and Minerals	B.S., Geology New Mexico State University	BLM 10 yrs. - Geologist USGS 1 yr. - Geologist
Maria Isabel Diaz	Cartographer	Las Cruces High School	BLM 2 yrs. - Cartographic Aid Clerk Planning Aid
Rena Gutierrez	Writer-Editor	B.A., Journalism/Mass Communications New Mexico State University	BLM 6 yrs. - Writer-Editor Clerk-Typist Public Information Aid
Mike Howard	Wildlife, Biological Assessment	Assoc. Sci., Wildlife Management Central Texas College B.S., Range Animal Science M.S., Wildlife Management Sul Ross State University	BLM 6 yrs. - Wildlife Biologist Range Conservationist

TABLE 1 (continued)
LIST OF PREPARERS

Name	RMP Responsibility	Education	Experience
Lorraine J. Salas	Planning Clerk	Las Cruces High School	BLM 1 yr. - Planning Clerk (Typing) Clerk-Typist
Gerald Sanchez	Social and Economic Conditions	B.B.A., Economics New Mexico State University	BLM 5 yrs. - Regional Economist Budget Analyst Support Services Supervisor
Joe H. Sanchez	Vegetation, Livestock Grazing, Wild Burros	B.S., Range Science New Mexico State University	BLM 5 yrs. - Surface Reclamation Specialist USFS 2 yrs. - Range Conservationist SCS 3 yrs. - Soil Conservationist
Pam Smith	Cultural Resources	B.A., Anthropology New Mexico State University	BLM 3 yrs. - Archaeologist USFS 3 yrs. - Archaeological Technician Forest Archaeologist NMSU 2 yrs. - Contract Archaeologist

NOTE: In addition to the preparers listed above, the following people were involved in the preparation of the Draft RMP/EIS. Education and experience for these individuals are listed in the Draft RMP/EIS, pages 5-2 and 5-3.

Name	RMP Responsibility
Konnie Andrews	Geology and Minerals
Ben Fish	Visual, Recreation, ROS classes
Steven C. Hamp	Water Resources
Kimberly A. Harrison	Editorial Assistant
Sandra J. Hayes	Wildlife Inventory Data Compilation MSA (Wildlife, Recreation, Visual, Wilderness)
Kenneth Holmes	Wildlife
Jeff Jarvis	Recreation, Wilderness, Visual
Pete M. Laudeman	Cultural Resources

TABLE 1 (concluded)
LIST OF PREPARERS

Support Personnel

Robert Gonzales
Mike Howard
Christine Jones
Linda Kaufmann
Richard Meadows
Joe Montes
Gloria Romero
Elena Shaw

CONTRIBUTORS AND REVIEWERS

Las Cruces District

H. James Fox, District Manager
Robert Calkins, Associate District Manager
Candelario C. Nunez, Area Manager, White Sands Resource Area
Tom Birch, District Range Specialist
Charles Hodgin, Community Planner
Marvin James, Chief, Division of Planning and Environmental Assistance
Juan Padilla, District Realty Specialist
C. Dwayne Sykes, Outdoor Recreation Planner
Richard Watts, Chief, Division of Resource Management

New Mexico State Office

Bob Armstrong, Environmental Specialist
Phil Beck, Realty Specialist
Bernie Chavez, Natural Resource Specialist
Bill Dalness, Geologist
Edward Heffren, Geologist
Bob Heidemann, Outdoor Recreation Planner
Bill Jonas, Geologist
Jon Joseph, Outdoor Recreation Specialist
Brian Mills, Wildlife Management Biologist
Charles Pettee, Hydrologist
Verlyn D. Saladen, Soil Scientist
Bob Sellers, Natural Resource Specialist
Bill Sharp, Range Conservationist
Jerry Townsend, Range Conservationist
John W. Whitney, Natural Resource Specialist

second was on November 9, 1983, at the Convention Center, Truth or Consequences, New Mexico. Nine persons attended each of these sessions. BLM personnel were available to explain the planning process and discuss the concerns of those in attendance.

In addition to written comments, the Las Cruces District Advisory Board met on December 6, 1983, at the Cienega School, northeast of Dell City, Texas. Nine individuals, other than the six Board members, attended. A general discussion of the White Sands RMP was held. Concerns ranged from land disposal to special designations to protection of archaeological sites. A great deal of discussion time was devoted to the access/off-road vehicle issue. Extensive discussion also took place concerning land disposal. No formal recommendations were made by the Board concerning the plan. The White Sands RMP was also an agenda item in meetings held on March 23 and July 24, 1984.

On December 7, 1983, the Las Cruces District Advisory Council met at the New Mexico School for the Visually Handicapped. The Council also discussed the White Sands plan at length. The major part of discussion was devoted to the off-road vehicle issue. A major concern expressed was the lack of a universal definition of a road. The Council indicated those geographic areas it felt needed protection through special designation. No motion of record was made regarding the plan. The White Sands RMP was also an agenda item for the May 23, 1984, Las Cruces District Advisory Council meeting.

A content analysis which included numbers, types, and content of comments received for the White Sands RMP scoping process was sent to all commentators on December 21, 1983.

In January 1984, a letter containing the three issues and planning criteria developed as a result of the analysis of public comment was sent to approximately 500 people. The issues and planning criteria were available for a 30-day review and comment period (January 16, 1984 to February 15, 1984). Public comments received were minor in nature and were used in further refining of the issues and planning criteria. In April 1984, a second mailing was sent to approximately 500 people that contained the formally approved issues and planning criteria that would be used in the White Sands RMP.

Several meetings were held in 1984 with the County Commissioners in Sierra and Otero Counties, the Southern Rio Grande Council of Governments, Alamogordo City Planners, U.S. Forest Service Planners, White Sands Missile Range, Fort Bliss, and other agencies and groups to gather information concerning their desires and plans.

Public meetings were held on the Draft RMP/EIS in Alamogordo, New Mexico, on April 16, 1985, and in Truth or Consequences, New Mexico, on April 17, 1985. The meetings were informal and provided an open forum for discussion and information on the Draft RMP/EIS. Sixteen people attended the Alamogordo meeting and eight were in attendance at the Truth or Consequences meeting.

Other informal coordination with the public such as telephone calls, personal contacts, etc., have occurred in developing this RMP/EIS. Records of these contacts are located in the White Sands Resource Area Office.

SECTION 7 CONSULTATION

Consultation with the U.S. Fish and Wildlife Service (USFWS) is required before any project initiated or approved by the BLM is implemented that may affect any Federally threatened, endangered, or sensitive plant or animal or their habitat. This consultation is required by Section 7 of the Endangered Species Act of 1973. This RMP/EIS is considered a major project and informal consultation was initiated with the USFWS on November 8, 1984. On January 2, 1985, the USFWS sent a list of the threatened or endangered species which may occur in the White Sands Resource Area. The Biological Assessment was completed and sent to the USFWS on May 22, 1985. (The Biological Assessment is contained in Technical Report VI, which is available for review in the WSRA Office.) The Biological Opinion from the USFWS was received on June 25, 1985. Correspondence concerning the Biological Assessment and Opinion is found in Appendix E of the Final RMP/EIS.

The BLM cultural resource management program operates in accordance with 36 Code of Federal Regulations (CFR), Part 800, which provides specific procedures for consultation between BLM and the State Historic Preservation Officer (SHPO). Memorandum of Agreement (MOA) NMSO-168 between the SHPO, Advisory Council on Historic Preservation, and the BLM New Mexico State Office became effective October 19, 1982. This MOA coordinates the provisions of 36 CFR 800 with existing BLM procedures, emphasizing the BLM planning system. The MOA incorporates procedures for exchanging information with the SHPO concerning cultural resources on public and private lands. It defines those undertakings and activities requiring or not requiring consultation and establishes reporting standards. (Refer to Appendix H of the Draft for letters of consultation.)

PUBLIC REVIEW OF THE DRAFT RMP/EIS

The Draft RMP/EIS was filed with the Environmental Protection Agency on February 21, 1985. The Notice of Availability and Public Hearing dates were published in the February 26, 1985, Federal Register (Vol. 50, No. 38, pp. 7837-7838). The Draft RMP/EIS was made available to the public and the comment period started March 1, 1985. The 90-day public comment period ended May 29, 1985. Several public notices (including news releases and newsletters) were distributed announcing the availability of the Draft RMP/EIS and notices of public hearings. Approximately 650 copies were distributed by mail to various individuals, organizations, and government agencies. In addition, copies were available at 13 different libraries and the BLM offices in New Mexico.

In addition to all grazing permittees within the White Sands Resource Area and other interested individuals on the White Sands RMP mailing list, the Draft and Final RMP/EIS were sent to:

Congressional Delegation and New Mexico State Legislators

U.S. Senator Jeff Bingaman
U.S. Senator Pete V. Domenici
U.S. Congressman Joe Skeen
State Senator, District 35
State Senator, District 39
State Senator, District 40
State Representative, District 51
State Representative, District 52
State Representative, District 53

New Mexico State Agencies

Agriculture Department
    Livestock Board
Bureau of Mines and Mineral Resources
Commerce and Industry Department
Department of Finance and Administration
    Office of Cultural Affairs
    Museum of New Mexico
    Historic Preservation Division
    State Planning Division
Department of Game and Fish
Energy and Minerals Department
    Oil Conservation Division
Governor's Office
Health and Environment Department
Environmental Improvement Division
Highway Department
Human Services Department
    Office of Indian Affairs
Land Office
    Commissioner's Office
Natural Resources Department
  Adminstrative Services
    Division--Heritage Section
    Forestry Division
    Parks and Recreation Division
    Soil and Water Division
Radio Communications Bureau
State Engineer/Interstate Stream Commission
State Police
Taxation and Revenue Department
Transportation Department

Federal Agencies

Department of Agriculture
    Agricultural Research Service
    Jornada Experimental Range
    Agricultural Stabilization and Conservation Service
    Farmer's Home Administration
    Forest Service
Department of Commerce
Department of Defense
    Department of the Army
        Corps of Engineers
        Fort Bliss
        White Sands Missile Range
Department of Justice
    Immigration and Naturalization Service
        Border Patrol
Department of the Interior
    Advisory Council on Historic Preservation
    Bureau of Indian Affairs
    Bureau of Mines
    Bureau of Reclamation
Department of the Interior
    Fish and Wildlife Service
    Geological Survey
    National Park Service
    Office of Environmental Project Review
Department of the Transportation
Department of Treasury
    Customs Service
Environmental Protection Agency
Federal Highway Administration
International Boundary and Water Commission

Local and Regional Governments, Agencies, and Indian Tribes

Caballo Soil and Water Conservation District
Chamber of Commerce (Alamogordo, El Paso, and Truth or Consequences)
Cities of Alamogordo, El Paso, and Truth or Consequences
El Paso County Commissioners

Local and Regional Governments, Agencies, and Indian Tribes (continued)

Elephant Butte Irrigation District
Jornada Resource Conservation and Development Council
Mescalero Apache Tribe
Otero County Commissioners
Otero County Electric Coop, Inc.
Sierra County Commissioners
Southeastern New Mexico Economic Development District
Southern Rio Grande Council of Governments
Village of Tularosa
Village of Williamsburg

Livestock-Related Organizations

Las Cruces District Grazing Advisory Board
New Mexico Cattle Growers Association
New Mexico Farm and Livestock Bureau
New Mexico Wool Growers Association
Otero County Farm and Livestock Bureau
Sierra County Farm and Livestock Bureau
Society for Range Management
Southeastern New Mexico Grazing Association
Southwestern New Mexico Livestock Grazing Association

Conservation Organizations

Ada County Fish and Game League
Albuquerque Archaeological Society
Earth Environmental Consultants
Environmental Management Services Company
El Paso Archaeological Society
International Society Protection
Izaak Walton League
Mesilla Valley Audubon Society
Mesilla Valley Grotto
National Audubon Society
National Council of Public Land Users
National Wildlife Federation
Natural Resources Defense Council

Conservation Organizations (continued)

Nevada Outdoor Recreation Association
New Mexico Archaeological Society
New Mexico Conservation Coordinating Council
New Mexico Natural History Institute
New Mexico Wildlife Federation
New Mexico Wildlife Society
Oregon Environmental Council
Public Lands Council
Public Lands Institute
Sierra Club
    Albuquerque Group
    El Paso Regional Group
    Rio Grande Chapter
    Southwestern New Mexico Group
Soil Conservation Society
Southwest Research and Information Center
Texas Archaeological Society
Wildlife Management Institute
Wilderness Society
Wildlife Society
    New Mexico Chapter

Other Organizations

Amoco Production Company
Atlantic Richfield Company
Burn Construction Company, Inc.
Champlin Petroleum Company
Consolidation Coal Company
El Paso Electric
El Paso Natural Gas Company
El Paso Water Utilities Public Service Board
Envirosphere Company
Federal Land Bank Association of Albuquerque
Federal Land Bank Association of Las Cruces
Federal Land Bank Association of Roswell
Gas Company of New Mexico
Homestake Mining Company
Hunt Energy Corporation
Las Cruces Production Credit Association
Minerals Exploration Coalition
Missing Link Mining Company
Molycorp

Other Organizations
(continued)

New Mexico Mining Association
New Mexico Oil and Gas Association
Noranda Exploration, Inc.
Plains Electric
Public Service Company of New Mexico
Rachalk Production, Inc.
Review of New Energy Technology
Sierra County Miners Association
Western Land Exchanges
Yates Petroleum Corporation

Other Groups

Albuquerque Jeep Herders, Inc.
American Motorcycle Association
Butterfield Trail 4x4 Club
Dona Ana Rockhound Club
El Paso 4x4 Club
Freewheel Cycle Club
Human Systems Research, Inc.
International Right-of-Way
Association of New Mexico
Jets Radio Club
Las Cruces District Advisory Council
New Mexico Motorcycle Dealers
Association

Other Groups
(continued)

ORV Use in New Mexico
Prairie Dawgs Motorcycle Club
Quivera Research Center
Sierra Rock Club
Truth or Consequences Off-Road
Association
West Texas 4-Wheel Drive
Association, Inc.

Universities and Libraries

Alamogordo Public Library
El Paso Public Library
New Mexico Institute of Mining
Technology
New Mexico State Library
New Mexico State University
Library
Range Improvement Task Force
Thomas Branigan Memorial Library
Truth or Consequences Public Library
University of New Mexico
University of Texas at El Paso

HEARINGS

Formal public hearings were held in Alamogordo, New Mexico, on April 16, 1985, and in Truth or Consequences, New Mexico, on April 17, 1985, to receive public comments as to the accuracy and adequacy of the Draft RMP/EIS. Fifteen people attended the Alamogordo hearing. No oral comments were presented. No one attended the Truth or Consequences hearing.

COMMENTS AND RESPONSES

During the comment period (March 1 to May 29, 1985), 26 letters from the public and agencies were received. After the close of the comment period, an additional seven letters were received. All letters received were responded to in the Final RMP/EIS. Individuals or organizations who sent letters are listed in Table 2. All letters are reproduced in their entirety.

Responses have been made to all substantive comments presented in the letters. Substantive comments were considered to be those which addressed either the adequacy and accuracy of the Draft RMP/EIS or the merits of the alternatives or both. The responses are presented adjacent to the comments in each letter. Any additional letters received will receive full consideration in the final decision.

TABLE 2

COMMENT LETTERS RECEIVED

Assigned Number in Order of Receipt	Name of Commentator
1	*Charles A. Dougher
2	*State Engineer Offie, New Mexico
3	National Council of Public Land Users
4	*USDA Soil Conservation Service
5	U.S. Department of the Air Force
6	U.S. Bureau of Reclamation, Rio Grande Project
7	*Louis E. Fuqua
8	Las Cruces District Grazing Advisory Board
9	Las Cruces District Advisory Council
10	*U.S. Bureau of Reclamation, Southwest Region
11	*U.S. Nuclear Regulatory Commission
12	Eldo Lewis
13	*U.S. Environmental Protection Agency
14	Museum of New Mexico, Laboratory of Anthropology
15	U.S. Bureau of Mines
16	*International Boundary and Water Commission, United States and Mexico
17	LeBron Hardie
18	*Sierra Club, El Paso Regional Group
19	University of New Mexico, Department of Anthropology
20	Sterling O. Roberts
21	Southwestern New Mexico Grazing Association
22	Glen D. DeGarmo
23	*U.S. National Park Service, Southwest Region
24	Wildlife Management Institute
25	*Bruce Martin
/ 26	George W. Rauch
27	Kevin VonFinger
28	U.S. Department of the Army, Fort Bliss
29	State of New Mexico, Governors' Cabinet Department of Finance and Administration
30	New Mexico Natural History Institute
31	*U.S. Department of the Army, Albuquerque Corps of Engineers
32	Sierra Club, El Paso Regional Group
33	*U.S. Fish and Wildlife Service

Notes: * - Indicates letters not requiring a response in th Final RMP/EIS.

/ - Comment letters below the line were received after the comment period closed.

3-15-85

Dear Sir:

Id like to express my opinion on The 1.8 million acres in Sierra and Otero county's 1 II choice Bann all Graying 2nd open to Public Recreation and Mining

Very Truly Yours
Charles A. Dougher

10908 Claremont Ave N.E.
Albuquerque N.M. 87112

STATE OF NEW MEXICO
STATE ENGINEER OFFICE
SANTA FE

S. E. REYNOLDS
STATE ENGINEER

BATAAN MEMORIAL BUILDING
STATE CAPITOL
SANTA FE, NEW MEXICO 87503

March 19, 1985

Mr. Daniel C. B. Rathburn
District Manager
Bureau of Land Management
Post Office Box 1420
Las Cruces, New Mexico 88001

Mr. Rathburn:

The New Mexico State Engineer Office has no comment to make on the draft report "White Sands Resource Area Resource Management Plan Environmental Impact Statement."

Sincerely,

Eluid L. Martinez, Chief
Technical Division

ELM:eg

National Council of Public Land Users

P. O. Box 811
Grand Junction, Colorado 81501

Paul Maxwell, President 23 Mar 85 ~~Herbert Snyder~~ Secretary

Mr. Larry Bunce, Area Manager
White Sands Resource Area
1800 Marquese Street
Las Cruces, New Mexico 88004

Dear Sir:

The White Sands Resource Area Draft Resource Management Plan Environmental Impact Statement dated March 1985 has been reviewed.

3-1 Conspicuous by its absence in Chapter 3, Affected Environment, Physical Setting, CLIMATE, is any mention of the relationship between precipitation and NATURAL EVAPORATION. Natural evaporation from solar exposure and dry winds is a significant influence on vegetation. All of which are part of the "physical setting" of any land.

If those who prepared the statement are ignorant of this natural influence, they are not competent in their work and the statement should be re-written. If they are aware of these influences and have purposely omitted this critical information, there must be a reason and corrective action taken. Without it domestic livestock grazing cannot be justified. Government sponsored destruction of the National Resource Watersheds can no longer be tolerated.

Yours truly
Herbert Snyder, Secretary

Copy to: Public Lands Institute
Natural Resources Defense Council

3-1 This change is noted in the Errata Section, page 112, for Chapter 3, Climate.

United States Department of Agriculture
Soil Conservation Service
517 Gold Avenue SW, Room 3301
Albuquerque, NM
87102

March 28, 1985

Mr. Larry Nunez, Area Manager
White Sands Resource Area
1800 Marquess Street
P.O. Box 1420
Las Cruces, NM 88004

Dear Mr. Nunez:

The draft RMP/EIS for the White Sands Resource Area has been reviewed.

We believe that long term resource values will be best served by the implementation of Alternative I - Balanced. This alternative does not include components which will conflict with SCS interests.

We appreciate the opportunity to review this document.

Sincerely,

Ray T. Margo, Jr.
State Conservationist

cc:
Thomas N. Shiftlet, Director of Ecological Sciences, SCS, Washington, DC 20013

The Soil Conservation Service is an agency of the Department of Agriculture

DEPARTMENT OF THE AIR FORCE
AIR FORCE REGIONAL CIVIL ENGINEER CENTRAL REGION
1114 COMMERCE STREET
DALLAS TEXAS 75242

2 April 1985

Mr. Daniel C.B. Rathburn, District Manager
Las Cruces District Office, BLM
P.O. Box 1420
Las Cruces, New Mexico 88001

Dear Mr. Rathburn:

Thank you for allowing us the opportunity to review the White Sands Resource Area Draft Resource Management Plan Environmental Impact Statement, New Mexico.

We continue to express our support of the BLM in developing functional management plans for lands under its control. The Air Force concern for these management issues contains the need to retain use of existing and the establishment of future military flight training areas and routes which may traverse these areas.

Currently several Air Force air operations including instrumental flight training routes IR 134 and VR 176 traverse a portion of the study in question. Although flight training areas, routes, and airspace requirements of the military are subject to change and do change frequently, it is not anticipated that new routes will be established in the immediate future. However, if we do propose any change we will keep you informed.

Mission requirements, fuel costs and environmental constraints determine the decision to locate military training activities. Because of general aviation and population pressures, low level high speed flights are relegated to areas which are least accessible and sparsely inhabited. Therefore, we request that you give full consideration to how planning and management decisions made by your agency may adversely affect or restrict use of low altitude airspace by the military. The Air Force position on this matter is based on the high training and readiness values rendered by use of this low altitude airspace. 5-1

We are hopeful this information is useful in your planning. If additional information is needed, our staff point of contact is Mr. Raymond Bruntmyer, (214) 767-2527, or FTS 729-2527.

Sincerely,

EDWARD LOPEZ, Chief
Planning and Intergovernmental Affairs Branch

Cy to: HQ USAF/LEEV

5-1 Full consideration has been, and will continue to be, given to how planning and management decisions made by BLM may affect use of low altitude airspace by the military. No impacts have been found during the development of this RMP/EIS.

United States Department of the Interior
BUREAU OF RECLAMATION
RIO GRANDE PROJECT
109 N. OREGON STREET P.O. DRAWER P
EL PASO, TEXAS 79952-0002

IN REPLY REFER TO: 420

APR 11 1985

Mr. Daniel C.B. Rathbun
District Manager
Las Cruces District
Bureau of Land Management
P.O. Box 1420
Las Cruces, New Mexico 88001

Dear Mr. Rathbun:

We have reviewed your Draft Environmental Impact Statement - White Sands Resource Area and have the following specific comments:

6-1 1. If there are land areas eligible for disposal that are immediately adjacent to the Elephant Butte Reservoir Reservations, the Bureau of Reclamation should be advised to determine if these areas are required for reservoir purposes, as reservoir capacity storage will exceed present Reclamation withdrawals at the reservoir.

6-2 2. Off-Road-Vehicle use at Elephant Butte and Caballo Reservoirs will be by approval of the Bureau of Reclamation and the New Mexico State Park and Recreation Division.

3. Oil, gas, and mineral leasing on Reclamation property will be by Reclamation approval and shall, if leased, contain Reclamation's lease stipulations for protecting the reservoirs.

4. Other management activities, i.e., grazing, improvements, vegetation and wildlife habitat on Reclamation lands shall be in accordance with the Interagency Agreement of December 1982.

Sincerely,

Roger K. Patterson

Roger K. Patterson
Project Superintendent

6-1 Some lands are eligible for disposal consideration that are located adjacent to the Elephant Butte and Caballo Reservoir Reservations. The Bureau of Reclamation should contact the BLM as a matter of course whenever it feels that additional public land is needed. The BLM will entertain specific disposal motions once the RMP has been finalized.

6-2 Off-road vehicle use; oil, gas, and mineral leasing; and other management activities on lands withdrawn for the Bureau of Reclamation would be in accordance with the Interagency Agreement between the Bureau of Reclamation and BLM of March 1982. Copies of this agreement are available at the BLM's Las Cruces District Office.

WHITE SANDS RESOURCE MANAGEMENT PLAN
RECORD OF PUBLIC CONTACT OR INPUT

TEL 505 434-4387 Date: 4-16-85

LOUIS E. FURUA (SELF PROCLAIMED *NATURALIST)
Individual Name and Organization (If applicable)

MAIL ADDRESS: PO BOX 8 LA LUZ NM 88337 *
Address

RANGE: MANAGEMENT AND WILDLIFE
Issue or Concern

* RESIDENCE: FENKE ACRES PARK SPACE 15, NORTH FLORIDA AVENUE ALAMOGORDO NM 88310 TEL 505 434-4387

Comments: I AM INTERESTED IN ALL WILDLIFE, NOT JUST GAME ANIMALS AND GAME BIRDS. I AM ALSO INTERESTED ALL PLANT LIFE, PRIMARY FIELD OF INTEREST — * ECOLOGY & ETHOLOGY. I HAVE LIVED IN OR NEAR ALAMOGORDO FOR OVER 10 YEARS (1965-1974 ELECTRONIC ENGINEER AT WSMR, NM; 1984-1985 UNEMPLOYED). I HAVE A "VESTED INTEREST" IN CONTINUING TO LIVE IN THIS AREA (8 GRANDCHILDREN). ALSO, I AM A "DESERT TYPE" PERSON. ALTHOUGH I "WELL QUALIFIED FOR WORK (MA DEGREE AND BS DEGREE - ENGINEERING & EXPERIENCE IN ELECTRONIC INSTRUMENTATION; AND GENERAL ABILITY), I AM ALSO 57 YEARS OLD. *

* MY MAIN INTEREST WOULD BE EITHER BLM ALTERNATIVE I OR ALTERNATIVE III. MY PERSONAL PREFERANCE WOULD BE FOR ALTERNATIVE III.

* IS IT POSSIBLE THAT THERE MAY BE A JOB FOR ME IN BLM? LOW ENTRY LEVEL, WAGE OR SALARY, WOULD BE ACCEPTABLE.

LAS CRUCES DISTRICT GRAZING ADVISORY BOARD

April 22, 1985

Excerpts from Minutes:

The meeting of the Las Cruces District Grazing Advisory Board was reconvened at 9:30 a.m. on April 22, 1985 in the District Office, Conference Room.

Persons attending were:

Advisory Board Members	BLM Representatives
Smokey Nunn	Dan Rathbun
Weldon McKinley	Larry Nunez
Walt Greeman	Rich Watts
	Tom Birch
Visitors	Charles Hodgin
	Dub Bird
Karl Hess	Bill Gilbert
	Joe Sanchez
	Guadalupe Martinez

The results of the Alamogordo and Truth of Consequences meetings and hearings were discussed by Dan Rathbun and Larry Nunez. Specifically the change from 67 "I", 30 "M", and 9 "C" allotments to 42 "I", 54 "M", and 10 "C" allotments was presented. The various items in the summary tables were also presented.

8-1 Walt Greeman encouraged the Bureau to look at alternative ways of dealing with the Percha Creek rather than fencing the 320 acres.

The meeting was adjourned at approximately 11:15 a.m. No formal recommendations were made.

8-1 Under the Proposed Plan, fencing of the Percha Creek Riparian Area has been delayed until monitoring studies can define a specific problem or problems and management objectives are developed for a Habitat Management Plan. At that time, various alternative remedies, possibly including fencing, will be considered. The affect of these remedies on the ranch unit and economic analysis of the proposed project will be considered. Prior to starting any project, a site-specific Environmental Assessment will be completed to consider all impacts, and consultation and coordination with all affected parties will continue.

The Percha Creek Riparian Area contains 280 acres and is located in T. 16 S., R. 7 W., Section 14, W1/2NE1/4, SE1/4NE1/4, W1/2SW1/4, SE1/4SW1/4, NW1/4SE1/4. The site has legal public access across public land from New Mexico Highway 90.

LAS CRUCES DISTRICT ADVISORY COUNCIL
New Mexico District 030
April 23, 1985
Meeting Minutes

Excerpts from Minutes:

The meeting of the Las Cruces District Advisory Council was called to order at 9:50 a.m. on April 23, 1985 in the Conference Room of the District Office.

Members Present	BLM Representatives
Sandy Dick-Peddle	Dan Rathbun
Jay Cox	Rich Watts
Fred Loe	Larry Nunez
Peggy Bogart	Harlan Smith
Tommy Perez	Bill Markenrider
Charlie Lee	Charles Hodgin
	Bill Gilbert
Others Present	Joe Sanchez
	Ouh Bird
Karl Hess	Guadalupe Martinez
Weldon McKinley	

The White Sands Resource Management Plan was the next item on the agenda. Larry Nunez, White Sands Area Manager, discussed the content of the plan.

9-1 With regard to the Land Tenure Adjustment Issue, Jay Cox motioned and Tommy Perez seconded the recommendation that they give a high priority to the disposal of small, isolated tracts which have had preliminary work completed or which have been identified through the planning process.

9-2 In addition, Fred Loe motioned and Jay Cox seconded a recommendation that the "protection" alternative (number 3) should be selected as the preferred choice for the Land Tenure Adjustment Issue. There was a lot of discussion regarding the propriety of the word "protection" to identify the alternative. It was generally agreed that the term was not properly descriptive of the alternative, but no substitute wording was agreed upon.

9-1 The Proposed Plan includes the isolated and difficult to manage parcels from the Balanced Alternative (See Final page 6).

9-2 The Proposed Plan includes the potential exchange and acquisition lands from the Protection Alternative (See Final page 7).

United States Department of the Interior

BUREAU OF RECLAMATION
SOUTHWEST REGION
COMMERCE BUILDING, 714 S. TYLER, SUITE 101
AMARILLO, TEXAS 79101

IN REPLY REFER TO: 150

APR 16 1985

Memorandum

To: Area Manager, Bureau of Land Management, Las Cruces, New Mexico

From: ACTING Regional Director

Subject: Review of White Sands Resource Area Draft Resource Management Plan, Environmental Impact Statement (DES 85-6)

The Bureau of Reclamation, Southwest regional office, has reviewed the subject draft documents as requested by Bureau of Land Management District office letter dated March 1985. We are in agreement with the preferred or balanced plan alternative as described. Reclamation has no planned or completed projects that would be affected by the proposed plan. Accordingly, we have no further comments to offer.

F. Phillip Rasp

cc: Commissioner, Attention: 150

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

APR 17 1985

Mr. Larry Nunez, Area Manager
White Sands Resource Area
1800 Marquess Street
P. O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Nunez:

In response to the letter dated March 1985, from Mr. Daniel Rathbun to the Nuclear Regulatory Commission, we have reviewed the Draft Environmental Impact Statement (EIS) prepared by the U.S. Department of Interior for the White Sands Resource Management Plan. Our review was directed to whether the action described in the draft EIS involved matters within our jurisdiction by law or special expertise or had any potential impact on NRC licensed facilities. No potential effects were identified; therefore, we have no specific comments on the draft EIS.

Thank you for the opportunity to review the draft document.

Sincerely,

James P. Knight, Acting Director
Division of Engineering
Office of Nuclear Reactor Regulation

WHITE SANDS RESOURCE MANAGEMENT PLAN
RECORD OF PUBLIC CONTACT OR INPUT

Date: April 22, 78

Eldo Lewis & Interest
Individual Name and Organization (if applicable)

P.O. Box 151, Dell City, Texas 79837
Address

How to save the grasses
Issue or Concern

Comments: Eldo has lived on Crowsfoot for 79 years and has seen the changes take place from grassland to Coondog Gyp creosotebush. He thinks while drought periods occur any increase in grasses the Creosotebush continues to increase year after year regardless of whether it is being grazed or not. He agrees with your idea that getting rid of the Creosotebush, mesquite and Cactus is the only way to give the grasses a chance to increase.

He thinks in order for you to get the true picture of the use of the forage by livestock spring you should look the condition of the forage at the end of each growing season in the fall and again before the growing season begins in the spring.

Sincerely
Mrs. Eldo Lewis

12-1

12-1 At the present time, our Range staff makes three to four visits to each allotment during the year and checks apparent average utilization of key plant species at varying distances from water and checks for poisonous plants and their locations. Soil moisture conditions and apparent trend are also noted. In addition, livestock numbers, actual use, condition, and location are noted. This information is made a part of our monitoring files.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

APR 15 1985

Mr. Daniel C. B. Rathbun
District Manager
Bureau of Land Management
Las Cruces District Office
P.O. Box 1420
Las Cruces, New Mexico 88001

Dear Mr. Rathbun:

We have completed our review of your Draft Environmental Impact Statement (EIS) and the White Sands Resource Management Plan. These documents will provide a framework for managing and allocating land and resources on 1.8 million acres of public land in Otero and Sierra Counties, New Mexico.

We classify your Draft EIS as Lack of Objections (LO). We have no objection to your proposed action as discussed in the Draft EIS. Our classification will be published in the Federal Register according to our responsibility to inform the public of our views on proposed Federal actions under Section 309 of the Clean Air Act.

We appreciate the opportunity to review the Draft EIS. Please send our office one (1) copy of the Final EIS at the same time it is sent to the Office of Federal Activities, U.S. Environmental Protection Agency, Washington, D.C.

Sincerely yours,

Dick Whittington, P.E.
Regional Administrator

Laboratory of Anthropology
Museum of New Mexico

May 1, 1985

Mr. Danial C.B. Rathbun
District Manager
Bureau of Land Management
Las Cruces Area Office
Las Cruces, N.M. 88004

Dear Mr. Rathbun:

I have the following comments on the document entitled "White Sands Resource Area: Draft Resource Management Plan/Environmental Statement" dated March 1985.

Overall, those parts of the document relating to cultural resources are well thought out and relatively comprehensive. I would like to raise several points as follows:

Alternative I - Balanced Alternative

14-1 p. 4-24 How does BLM intend to limit ORV use to the existing roads and trails in eroded areas? Will signs only be used or will there be fencing and patrolling as well?

14-2 Fencing of riparian areas may or may not protect cultural resources. If the fences are placed on the boundaries of the riparian areas (that is, along the riparian area/valley slope juncture), many cultural resources will be omitted by the proverbial hair's-breadth. If a buffer zone along the riparian areas is to be included within the fenced areas, how wide will it be?

14-3 In the last paragraph, the following sentence is unclear as to its meaning: "By selecting 40-acre parcels that contain significant sites, there would be a high impact on the cultural resources."

pp. 4-24 & 4-25 Here and elsewhere the point is made that the opening of new roads into new areas creates the potential for introducing and accelerating the incidence of vandalism and pothunting. This fact has been demonstrated time and again and is probably the singly greatest hazzard to archaeological sites. The effects can be seen within a few years and are manifest in three general phenomena: (1) surface artifact size and diversity decrease because the larger, prettier items are picked up first; (2) overall surface artifact numbers decrease substantially; and (3) potholes and other signs of digging appear.

Alternative II - Production Alternative

p. 4-44 The reduction of known site density for the district as a whole to number of sites-per-acre figures (1 site/319 acres and 2 sites/section) is strongly misleading as used throughout this document. Archaeological sites are not evenly distributed across the landscape. Also, some sites

a division of the Office of Cultural Affairs *Box 2087* *Santa Fe, New Mexico 87504-2087*

14-1 ORV use will be limited by placing signs at locations on existing roads and trails that are clearly visible to users near or at areas of high concern. Monitoring and compliance with regular patrols also will be necessary.

14-2 Prior to the placement of fences along riparian zones, a cultural resource inventory will be conducted. If significant cultural resources are located during the survey, they will be enclosed within the fence.

14-3 The sentence has been rewritten for clarification. See revised Draft page 4-24 (Final page 124).

cover dozens or even hundreds of acres and hence are not trivial in any sense.

Alternative III - Protection Alternative

p. 4-59 Here and elsewhere as pertinent, the focusing on a single site (a "small Jornada Mogollon pueblo", in this case) is misleading in that it may well be the only known site in an area containing numerous sites. As you are now well aware for the Jarilla Mountains area, a large number of sites, many of them large, were located during surveys made for the army field exercises currently being conducted in the southern Tularosa Basin. Thus, it may be only one known site that is endangered by new road building, but given our spotty knowledge, a lot more are surely to be endangered. My point is that the wording in this instance, and elsewhere in the document, sometimes leaves the reader with the impression that perhaps only a site or two are at stake when in fact many are, though we do not know the exact number at this time. This question is especially crucial when it comes to consideration of the indirect impacts new road building causes to an area (the beginnings or acceleration of vandalism to cultural resources). 14-4

Again, what mechanisms will be used to insure that the ORV's will stay within the designated 320 acres? 14-5

Alternative IV - No Action

p. 4-66 Here and elsewhere livestock and ORV impacts mainly address artifact breakage and displacement. However, another major impact from both sources is the initiation and acceleration of erosion. In the long term, erosion can be even more destructive by destroying parts or all of the site and by becoming an attractive nuisance to artifact seekers and pothunters. Many sites in this part of New Mexico are so subtle that many artifact hunters do not guess that a site has sub-surface remains until they see artifacts eroding out of gullies. Then the digging begins.

Alternative V - No Grazing

p. 4-74 A more accurate statement, rather than that all impacts would be eliminated, is that no new impacts would be introduced. The old impacts such as accelerated erosion and continued vandalism to cultural resources would continue. 14-6

To reiterate, the sections on cultural resources in this document are, in general, quite good. Additions along the lines suggested above would improve those sections and provide a better rounded perspective.

Thank you for the opportunity to comment on this document. Please convey to your staff my appreciation for the hard work they have contributed to it.

Sincerely,

Reggie N. Wiseman
Staff Archaeologist

14-4 Prior to any ground disturbing activity, a cultural resource inventory will be conducted in accordance with 36 CFR 800.

14-5 See response to Comment 14-1.

14-6 On Draft page 4-74, under the No Livestock Grazing Alternative, reference was made to impacts caused by livestock. If livestock were removed from public land, impacts by livestock would be eliminated. Other impacts such as erosion and vandalism to cultural resources would continue.

United States Department of the Interior

BUREAU OF MINES

[illegible]

BUILDING 20, DENVER FEDERAL CENTER

DENVER, COLORADO 80225

Intermountain Field Operations Center

Memorandum

To: Area Manager, White Sands Resource Area, 1800 Marquess St
P.O. Box 1420, Las Cruces, New Mexico 88004

From: Chief, Intermountain Field Operations Center

Subject: Review of the White Sands Resource Area, Draft Resource Management Plan Environmental Impact Statement - New Mexico

Bureau of Mines personnel have reviewed the subject document and offer comments that pertain only to mineral availability within the resource area.

The White Sands Resource Area, in south-central New Mexico, includes about 7 million acres of land in Otero and Sierra Counties. Federal mineral management responsibility within the unit covers only about 3.6 million acres; the remainder is controlled by the Army, private entities, and the State. The purpose of the proposed action is to provide comprehensive direction and management of the lands and resources within the unit.

Reductions in the work force, and the financial losses caused by recent curtailments in production of uranium, copper, and potash, illustrate the extent that the economy of New Mexico is dependent on the State's mineral resources. Within the White Sands Resource area, known mineral resources and occurrences include alunite, barite, beryllium, clays, coal, copper, fluorite, geothermal resources, gold, gypsum, iron, lead, limestone, manganese, molybdenum, petroleum and natural gas, perlite, pumice, rare earths, sand and gravel, silver, tungsten, turquoise, uranium, vanadium, and zinc. Although mineral production in the two counties presently is limited to only a few of these commodities, the potential for future production is high.

The proposed Management Plan Draft Environmental Statement adequately states known information concerning mineral resources within the planning area, and evaluates impacts of the plan on mineral resources. Mineral development is totally restricted only as necessary to minimize environmental impacts on surface resources in limited areas such as lakes, petroglyph and archeological sites, and other small areas of intense use.

15-1 Although no large areas are totally closed to mineral prospecting and development, the severity of certain restrictions on mineral entry should be clarified, particularly the "off-road vehicle use" designation that could, from a practical effect, be a severe restriction. Within watersheds, off-road vehicle use is limited to existing roads and trails on 62,490 acres. The same designation applies to 15,490 acres of land in the Cornudas Mountains for the protection of visual resources. Because the "no off-road vehicle" designation, from our viewpoint, appears to preclude these areas from mineral search or mineral exploration and development, an explanation of the severity of the stipulations should be included in the final statement. We note that one of the main issues of concern registered during the comment period, and in the response to the Preliminary Resource Management Plan, was the need for public access to facilitate mineral exploration in prospective mineralized areas. Improved access, however, in the form of either road construction or right of ways through private land, would serve little purpose if the "no off-road vehicle use" designation were to effectively inhibit the search for minerals.

William Cochran

William Cochran

cc: Regional Environmental Officer,
Albuquerque, N. Mex.

15-1 The text of the Draft RMP/EIS (pages 4-3 and 4-49) has been modified and corrected to clarify the effect of ORV restrictions on mineral entry (See Final pages 170 and 325). "Limited" ORV designations and "No Surface Occupancy" (NSO) designations would not inhibit locatable mineral exploration, development, or production. Under a "closed" ORV designation, an operator interested in locatable mineral exploration would have to file a Plan of Operations rather than a Notice under the 43 CFR 3809 Regulations.

With respect to leasable minerals, the following stipulation would be attached to all oil and gas and geothermal leases in the watershed treatment areas and the area of the Cornudas Mountains where protection of visual resources is proposed.

> The lessee is given notice that all or portions of the lease area contain special values, are needed for special purposes, or require special attention to prevent damage to surface resources. Any surface use or occupancy within such areas will be strictly controlled. Use or occupancy will be authorized only when the lessee/operator demonstrates that the area is essential for operations and when the lessee/operator submits a surface use and operations plan, which is satisfactory to the Bureau of Land Management, for the protection of these special values and existing or planned uses. Appropriate modifications to the imposed restrictions will be made for the maintenance and operations of producing wells.
>
> After the Bureau of Land Management has been advised of the proposed surface use or occupancy on these lands, and on request of the lessee/operator, the Bureau of Land Management will furnish further data on such areas.
>
> Reason for Restriction:
>
> Restricted off-road vehicle use in order to protect critical watershed ("or visual resources").
>
> Duration of Restriction:
>
> Prior to acceptance of this stipulation, the prospective lessee is encouraged to contact the Bureau of Land Management for further information regarding the restrictive nature of this stipulation.

Current policy is to use the above "restrictive" lease stipulation in lieu of the NSO or No Leasing stipulations. Because large areas with the NSO stipulation are considered to be de facto "no leasing" areas, the NSO stipulation is being used for small areas that can be explored and developed by directional drilling. The "restrictive" stipulation is being used for larger areas.

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
THE COMMONS, BUILDING C, SUITE 310
4171 NORTH MESA
EL PASO, TEXAS 79902

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

MAY 2 0 1985

Mr. Larry Nunez
Area Manager
White Sands Resource Area
1800 Marquess Street
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Nunez:

We appreciate the opportunity to review the White Sands Resource Area Draft Resource Management Plan and Environmental Impact Statement (RMP/EIS).

Our review of the RMP/EIS indicates that the proposed action and alternatives will have no apparent adverse effects on U.S. Section Canalization Project activities along the Rio Grande in south central Sierra County, New Mexico. Therefore, we have no additional comments to make on the proposed action.

Sincerely yours,

George R. Baumli

George R. Baumli
Principal Engineer
Investigations and Planning Division

May 26, 1985

Mr. Larry Nunez
Bureau of Land Management
1800 Marguess Street
Las Cruces, New Mexico 88005

Re: comments of designation of Sacramento Escarpment as ACEC as proposed in Draft RMP/EIS and Technical Report I

Dear Larry:

17-1 I am wholeheartedly in favor of designating the Sacramento Escarpment as an ACEC for visual resources as proposed in Alternative I (Balanced Alternative) in the Draft and the Report with the following amendments:

(1) designation of ACEC:

(a) add T17S R10E, Sec. 29, NW1/4NE1/4 (40 acres). the northwestern part of this square either contains part of the eacarpment or is too close to it to be omitted. this square is immediately south of a 40-acre square which contains part of the escarpment, and which is private but should be acquired if possible.

(b) add T18S R10E, Sec. 22, NE1/4SW1/4 (40 acres). the eastern part of this square contains part of the escarpment.

(c) add T18S R10E, Sec. 35, NE1/4NW1/4 (40 acres). the northeastern part of this square either contains part of the escarpment or is too close to it to be omitted.

(2) designation of NSO:

(a) add T17S R10E, Sec. 29, NW1/4NE1/4 (40 acres). same reason as in item (1)(a) above.

(b) add T18S R10E, Sec. 22, W1/2NE1/4SW1/4 (20 acres). same reason as in item (1)(b) above. 20 acres already designated.

17-1 Under the Proposed Plan, 3,640 acres of the Sacramento Escarpment will be designated as an Area of Critical Environmental Concern (ACEC) (See Final page 5). This Proposed Plan is a combination of Alternative I (Balanced Alternative) and the land acquisition portion of Alternative III (Protection Alternative) (80 acres) described in the Draft RMP/EIS and Technical Report I.

With the exception of 80 acres identified for acquisition under the Protection Alternative [T. 17 S., R. 10 E., Section 8, NE1/4SE1/4 (40 acres) and T. 17 S., R. 10 E., Section 20, NW1/4SE1/4 (40 acres)], no other ACEC acquisition was incorporated into the Proposed Plan. A No Surface Occupancy designation will be proposed for the 80 acres when the acquisition has been consummated. Since the Protection Alternative was not selected, the additional acres to he designated as an ACEC were not included in the Proposed Plan.

(c) add T18S R10E, Sec. 35, NW1/4NE1/4NW1/4 and S1/2NE1/4NW1/4 (30 acres). same reason as in item (1)(c) above. 10 acres already designated.

(d) add whatever acreages might be acquired for designation as ACEC.

note: there are two typographical errors (commas) in the Technical Report I in III.B.3.a. in the legal description for T17S R10E, Sec. 8, which should be NW1/4NE1/4, N1/2SW1/4NS1/4, SW1/4SW1/4NE1/4, W1/2NW1/4SE1/4 (90 acres).

(3) acquisitions for ACEC:

(a) acquire if possible T17S R10E, Sec. 4, NE1/4NW1/4 (40 acres). the southeastern part of this square conyains part of the escarpment.

(b) acquire if possible T17S R10E, Sec. 8, NE1/4SE1/4 (40 acres). this whole square is part of the escarpment and is surrounded by BLM and FS land. this square and the 40-acre square at T17S R10E, Sec. 20, NW1/4SE1/4, are the highest priority for acquisition.

(c) acquire if possible T17S R10E, Sec. 17, SE1/4NW1/4 and NE1/4SW1/4 (80 acres). the eastern part of these squares either contains part of the escarpment or is too close to the escarpment to be omitted.

(d) acquire if possible T17S R10E, Sec. 20, NW1/4SE1/4 (40 acres). the eastern part of this square contains part of the escarpment. this square and the 40-acre square at T17S R10E, Sec. 8, NE1/4SE1/4, are the highest priority for acquisition.

(e) acquire if possible T17S R10E, Sec. 20, SW1/4SE1/4 (40 acres). the eastern part of this square contains part of the escarpment.

17-2 (4) off-road vehicles:

amend the Draft RMP/EIS so as to make it the same as the Technical Report I which limits use to "designated roads".

17-2 This change is noted in the Errata Section, page 112, for Draft page 2-4.

38

(5) minerals:

withdraw the ACEC from locatable mineral entry.

I would very much appreciate your adoption of the amendments which are set out above.

Thank you.

Sincerely,

LeBron Hardie

LeBron Hardie

540 Marthmont
El Paso, Texas 79912

915-541-7800

SIERRA CLUB

EL PASO REGIONAL GROUP
P.O. BOX 9191 EL PASO, TEXAS 79983

May 27, 1985

Mr. Larry Nunez
Bureau of Land Management
1800 Marquess Street
Las Cruces, New Mexico 88005

Re: designation of the Sacramento Escarment as an Area of Critical Environmental Concern for visual resources as proposed in the Draft Resource Management Plan/Environmental Impact Statement (including Technical Report I) for the White Sands Resource Area

Dear Mr. Nunez:

The El Paso Regional Group of the Sierra Club supports the designation of the Sacramento Escarpment as an ACEC for its outstanding scenic and recreational values.

We are in favor of your proposal as stated in the Draft and the Technical Report I with those amendments to the Balanced Alternative (Alternative I) which are being recommended by LeBron Hardie.

Thank you.

Sincerely,

John Hamilton

John Hamilton

Chairman

. . . To explore, enjoy, and protect the Nation's scenic resources. . .

Department of Anthropology
University of New Mexico
Albuquerque, New Mexico 87131

May 24, 1985

Larry Nunez, Area Manager
White Sands Resource Area
BLM Las Cruces District
PO Box 1420
Las Cruces, New Mexico

Dear Mr. Nunez:

I would like to comment on the cultural resources sections of the White Sands Resource Area draft resource management plan and EIS.

Over the past four years, I have studied the archaeology of western Sierra County, New Mexico; first as director of survey for the University of New Mexico archeological field school (1982-1983) and more recently as principal investigator of a historic preservation grant for survey of the Rio Grande valley in Sierra County (1984-1985).

Reports of this work have appeared mainly in papers presented at the second and third Mogollon Conferences (held in Las Cruces, 1982 and 1984), at the second Jornada Conference (held in El Paso, 1983), and at the Pecos Conferences of 1983 and 1984. A report on the first season of the UNM field school has only recently appeared (M. C. Nelson, The Ladder Ranch Research Project, Technical Series of the Maxwell Museum of Anthropology 1). The report on my current work in the Rio Grande is currently in preparation and will be completed by September 1985. All sites from both projects have been coded and recorded on the Laboratory of Anthropology's ARM program. There is, of course, no way that these recently published and yet-to-be published reports could have been incorported in the draft EIS; I simply wish to bring them to your attention for future revisions of the document.

In Chapter 3, "Affected Environment", you present average site densities and projected site totals for the resource area. In your calculations, you apparently exlude the Rio Grande valley (note e, page 3-33), as private land. Yet almost two-thirds of the the length of the Rio Grande valley in the resource area is in fact federal. These are lands that are administered by the Bureau of Reclamation, but it is my understanding (from conversations with your office and Bureau of Reclamation officials, and from Visual A of your Grazing EIS for the Southern Rio Grande Planning Area) that BLM administers grazing allotments in the valley. If this is the case, I am unclear as to why management considerations extended to BLM administered lands outside the valley are not extended to sites in allotments

19-1

40

19-1 See response to Comment 6-2. A cultural resource inventory will be conducted prior to any ground disturbing rangeland improvement project associated with BLM grazing allotments which are located on Bureau of Reclamation land.

19-1 (cont'd) in the valley itself. The same cows will be trampling sites in both areas. I realize that this is a complex issue of overlapping jurisdictions and responsibilities, but I would appreciate clarification of this issue, since the Rio Grande Valley contains many significant sites.

In Map 3-7, you show projected site densities for the resource area varying from "possible" and "probable high site density" to "probable low site density" and "insufficient data". The surveys I mentioned above may allow better definition of density areas on this map. We have documented site densities on Palomas Creek, in the Rio Grande Valley and on portions of Seco and Animas Creeks; there is existing documentation at the Laboratory of Anthropology (unpublished notes of Herbert Yeo) of high site densities on the upper Alamosa and Cuchillo Negro Creeks. While survey coverage is by no means complete, I think we can extrapolate from these data to other areas in western Sierra County.

19-2 Map 3-7 has been revised to show this information (see Final page 133).

I have no problems with the areas shown in Map 3-7 as "probable" and "possible high site density", except that other areas should be so indicated as well. These include the Rio Grande valley, the entire length of Alamosa, Cuchillo Negro, Palomas, Animas, Percha, Tierra Blanca and Berrenda Creeks. The upper reaches of all other drainages (e.g. Seco, Salado, Trujillo, etc.) from the Gila National Forest to approximately the range line between R 6 W and R 7 W, should also be designated probable high site density areas.

These areas all represent river or stream environments; the UNM field school also surveyed a stratified random sample of areas away from the major creeks as well. The results of this survey are significant for the areas west of R 5 W shown as having "insufficient archaeological data" in Map 3-7. The field school survey found high site densities, both of architectural and non-architectural prehistoric sites, in grassland environments west of R 5 W, well away from the major drainages. Our sample was small, but we suggest that site densities may be high throughout western Sierra County west of R 5 W.

In fact, the only areas in western Sierra County that we feel can be reasonably included in the "probably low site density" zone are the creosote plains on the Palomas Surface, the broad plains between R 6 W and the Rio Grande. You show this area as "low density" on Map 3-7, and to the best of my knowledge, this is entirely appropriate, with the exception of the stream valleys that cut through this zone (noted above).

By far the most destructive impacts on cultural resources come not from cattle, erosion or other natural process, but from people. Illegal excavation and destruction are not a question of "production" versus "protection" management alternatives; there is a clear legal requirement to protect sites on public lands from illegal excavation or destruction without permit.

During our work in Sierra County, we have noticed a very clear difference in the preservation of cultural resources between private and public lands. While it is true that some sites on private land in Sierra County have been leased to professional pothunters and destroyed, in general the landowners we worked with were quite protective of sites. In our experience, on restricted private lands cultural resources are intact; on public lands, many sites have been partially or totally destroyed.

Since cultural resources cannot be protected on a site by site basis, a very reasonable alternative is to limit or restrict access to these resources. This is an aspect of access ignored in your evaluation of this issue, but well worth consideration. I note that road construction in the "balanced", "production" and "protection" alternatives includes increased access in the Perche - Berrands Creek area of southwestern Sierra County, and along the west slopes of the Cebollo Mountains. Increased access will, of course, mean increased impact on sites in those areas. However, road construction directly effects a relatively limited area, and there is an issue of access that is far less controlled and potentially far more damaging.

I refer to your policy regarding off-road vehicles (ORVs). Almost all of the larger prehistoric sites along the Rio Grande have been damaged by ORVs or vandalized by their drivers and passengers. Thus I view with dismay your decision to eliminate consideration of large-area ORV restrictions or limitations (page 2-26). This is not a general condemnation of ORV owners/users, but ORVs allow access (with picks and shovels) to sites that would otherwise escape illegal excavation. At many sites, the evidence is clear: ORV tracks leading to a pothole.

Along the Rio Grande, BLM lands border Bureau of Reclamation and New Mexico State Park administered lands. Some of the damaged sites are on Bureau of Reclamation lands, but access to almost all sites is through BLM lands. Your decision to eliminate consideration of ORV restrictions in this area will have an inevitable impact on Federally managed sites, both on your lands and lands administered by other agencies. The intent of the law, I think, is to protect sites on Federal lands, not just on BLM lands. It is my understanding that clearance surveys are often required on private lands effected by projects requiring BLM permits. Sites on Bureau of Reclamation lands should be afforded at least the same consideration as, for example, sites on private lands crossed by pipelines requiring BLM permits.

19-3 The effect of ORVs themselves on sites is severe. We have seen many sites severely damaged by ORVs. I suspect that in many cases the drivers did not realize that a site was being churned beneath their wheels, but nevertheless the damage was done. I find it somewhat ironic that the U.S. Army recognizes the need to protect cultural resources from ORVs in maneuver areas, and conducts archaeological surveys prior to sending in

19-3 The conclusion that ORV impacts are generally not significant in the White Sands Resource Area was based on the determination that only small amounts of off-road use occur on public land in Sierra and Otero Counties as a whole. As stated on Draft page 2-26, ORV use does not appear to be causing extensive resource damage or creating conflicts with other users of public land throughout the Resource Area. Therefore, we believe that resource conditions do not warrant widespread ORV limitations throughout the Resource Area.

BLM will not "unleash ORVs without consideration of their affect on cultural resources." These lands have been undesignated in the past, or in effect "open", and significant impacts have not occurred because of the small amounts of off-road use. ORV use will continue to be monitored throughout the White Sands Resource Area in general (43 CFR 8342.3) and intensively in specific areas (Draft page 2-24) during the deer hunting seasons. Impacts will be monitored and implementation adjusted as necessary (Draft page 4-1). Interim or emergency ORV designations can be implemented in problem areas. BLM regulations prohibit operating an off-road vehicle on public land "in a manner causing, or likely to cause, significant, undue damage to, or disturbance of, the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources or other authorized uses of the public lands" (43 CFR 8341.1 (f)(4) and 43 CFR 9268.3 (a)(2)(vii)(D)).

19-3 (cont'd)

the tanks; but apparently the BLM feels free to unleash ORVs without consideration of their effect on cultural resources. I assure you that most archaeological sites in your resource area will be destroyed just as completely by a jacked-up 4 x 4 as by a M-60 tank. Ideally, areas opened to unrestricted ORV use should be managed as for any other surface-altering use. I urge you to reconsider ORV restrictions both in the Caballos, along the western boundary of both Elephant Butte and Caballo lakes, and elsewhere in the resource area.

I appreciate the opportunity to comment on your draft management plan and EIS, and I will be glad to work with your staff regarding unpublished archaeological data for this area, and in any other way that will contribute to the protection and wise management of cultural resources in this area.

Sincerely,

Stephen H. Lekson

Stephen H. Lekson

copies to:
Tom Merlan, New Mexico State Historic Preservation Officer
Curt Schaefsma, New Mexico State Archaeologist
Steve Ireland, Bureau of Reclamation

May 28, 1985

To: Larry Nunez, Area Manager

White Sands Resource Area
Bureau Of Land Management
1800 Marquess Street
Las Cruces, New Mexico 88004

Dear Mr. Nunez,

I am submitting this letter to the B.L.M. requesting the elemination of the Percha Creek Riparian Area from the RMP/EIS, and also to make comment on the White Sands Resource Area Draft RMP/EIS published - March 1985, more specifically the 320 acres addressed as the Percha Creek Riparian Area.

When I came to Las Cruces 5/17/85 and spent most of the day at your B.L.M. office, no one could actually identify the legal description of the 320 acres proposed, which would strongly indicate that this proposal is only in a very tentative stage and hasn't been formally studied at all. In any case, as I showed you on the topo map, and you agreed, only 120 acres of B. L. M. administered land could possibly be construed as having any riparian characteristics. My private land holdings neighbor all possible riparian areas and to construct any fences or withdraws any of the possible land for any other than the existing purposes would greatly damage my private property, and my ability to reach this pasture in an historic and proper ranch management practice. It would affect my overall ranching unit.

20-1

The small amount of B.L.M. land that is in the creek bottom is an area of very steep, narrow canyon sides and the only passage for my cattle to go up and down in the pasture. The periodic floods would also make any fencing on this purposed area very difficult to maintain, especially for the B.L.M. fence crews operating from Las Cruces on a daily basis. I question the cost effectiveness of trying to maintain the huge water gaps that will have to be constructed across the Percha Canyon, and the smaller arroyos in this particular area. I would not try to do so even though I live in the immediate area.

With my private land above and below the only possible riparian area, as well as the south side, this area is isolated and would not be of a significant size to have any true riparian characteristics and would turn into a economic catastrophy just to try to maintain as such, from a distance as far away as Las Cruces. Please let common sense prevail and leave the area in the same condition and under the same management techniques that have existed the last fifty years and more.

Therefore, for the reasons above, and probably others if we could actually identify the land in question, I request that the Percha Creek Riparian Area be dropped and the land left in the alternative balanced category as it presently is.

Sincerely,

Sterling O Roberts

Sterling O. Roberts

20-1 See response to Comment 8-1.

21

May 28, 1985

To: Larry Nunez, Area Manager

White Sands Resource Area
Bureau Of Land Management
1800 Marquese Street
Las Cruces, New Mexico 88004

Dear Mr. Nunez,

21-1 This association requests the elemination of the Percha Creek Riparian Area from the RMP/EIS because of it's adverse impact on the value of the private lands on three sides of it, the adverse impact on the ranching unit presently supporting a ranch family by fragmenting an existing pasture and blocking of an important cattle trail and vital livestock watering, and because of the economic cost to the taxpayer of trying to control an area too small to be of any scientific riparian interest when surrounded on three sides by other ownership, from a distance as far as Las Cruces. This is simply not practical nor cost effective.

Sincerely,

Jim D. Hyatt

Jim D. Hyatt, President

Southwestern N. M. Grazing Assn.
Star Route 2 Box 25
Deming, New Mexico 88030

21-1 See response to Comment 8-1. Riparian areas of any size are of great importance because of their relative scarcity, especially in desert areas, and because they are a focal point of activity for a large number of wildlife species.

United States Department of the Interior
Bureau of Land Management
Las Cruces District Office
P.O. Box 1420
Las Cruces, New Mexico 88001

21 May 1985

To Whom it May Concern:

The following comments are a result of my critical review of the WHITE SANDS RESOURCE AREA, Draft Resource Management Plan, Environmental Impact Statement, dated March 1985. My particular area of concern in the review has been with historic resources and their treatment in the various alternatives described in the Draft.

22-1 In my opinion, a substantive weakness of the Draft is the lack of meaningful discussion of the different alternatives particularly with regard to the probable adverse effects of increased ORV traffic on, and public accessibility to, historic resources located throughout the White Sands Resource Area (WSRA). There is a related lack of discussion of how those adverse effects are to be mitigated. Further, the highly generalized and summary evaluation of the adverse effects to be expected from ORV traffic are unsupported by data. One has the impression that this entire issue is being ignored or at best glossed over in the Draft. The bases of this evaluation are documented below.

1. There has been insufficient fieldwork and analysis designed to locate and evaluate historic resources in the area of the undertaking, resulting in inadequate information about the specific locations and characteristics of either prehistorical or historical resources located the WSRA; note that page 3-33 of the Draft, in fact, reports that less than one (1) percent of the WSRA has been surveyed to locate historic properties; further, this same page documents that no survey to locate historical properties (a class of historic properties) has been conducted. The lack of specific

22-2 information prevents BLM personnel or other interested individuals from making informed assessments of the levels of direct and indirect impact predicted to result from opening vast amounts of land in the WSRA to increases both in ORV traffic and in general public access. Note that this is the general issue identified by the State Historic Preservation Officer (SHPO) of New Mexico in the letter included on page H-5 of the Draft.

2. Projected densities of historic sites in the WSRA area are highly questionable. It is stated on page 3-33 of the Draft that 13,290 historic sites are predicted in the 1,754,265 acres of the WSRA, giving a projected site density of 1 site per 132 acres. This projected density probably is based on inadequate and unrepresentative data, for none of the surveys reported on page 3-33 are identified as having been designed to provide quantitatively representative data as the bases of scientifically justified projections. The projected density is questionable on other grounds as well, for it is substantially lower than that found in well surveyed areas in the same general area. Such surveys routinely report site densities of ca. one (1) site per 35 acres. There is no reason to think that this density would not also be characteristic of the WSRA; note that the site density based on data from well surveyed areas would give a projected total

22-1 Impact analysis determined that ORV impacts are generally not significant in the White Sands Resource Area. This conclusion was based on the determination that only small amounts of off-road use occur on public land in Sierra and Otero Counties as a whole. As stated on Draft page 2-26, ORV use does not appear to be causing extensive resource damage or creating conflicts with other users of public land throughout the Resource Area. Therefore, we believe that resource conditions do not warrant widespread ORV limitations throughout the Resource Area.

As stated on Draft page 4-1, only significant impacts are discussed in the RMP/EIS. Mitigation measures and standard stipulations are included in Chapter 2, Management Guidance Common to All Alternatives, as stated on Draft pages 2-12 and 4-1. All public land will continue to be monitored for ORV use and adjustments in ORV designations made as needed.

Where data are limited, knowledge of the area and professional judgment were used to infer environmental impacts (Draft page 4-1). BLM employees are in the field on a regular basis and have not observed significant ORV conflicts. Annually during deer hunting seasons (the peak ORV use periods), special patrols are made every day (including weekends) to monitor ORV use. Again, no significant ORV problems have been found. Data from the Hunter Access/Operation Respect Report for the 1984 hunting season, dated March 3, 1985, document that ORV impacts were not a significant factor in resource degradation in Southern New Mexico. Out of 1,304 visitor contacts, only 3 complaints were directed toward ORV use, and one of those instances was legitimate use of an ORV on a road or trail. There has not been an application for an organized ORV event in the White Sands Resource Area since October, 1982. Future ORV use increase is predicted to be insignificant (Draft page 3-31).

22-2 Bureau Manual 8342.21(A) states that new inventory data are collected only when existing data are insufficient to resolve significant issues. BLM employees in the field on a regular basis have noted that ORV use has not caused extensive damage to resources in either Sierra or Otero counties, and therefore new cultural resource data were not collected.

of more than 50,000 sites, almost four (4) times the number projected in the Draft. These revised projections strongly suggest that the historic resources management problem in the WSRA is more complex than that admitted in the Draft.

22-3 3. There is no discussion of the significance of the historic resources data base characteristic of the WSRA. That is, there is no development of the significance of either the prehistorical or historical data base in general, of particular cultural periods, or of specific sites. Thus, individuals evaluating the Draft are unable to know the bases of BLM's management attitude toward the resources or to know if the lack of a well formulated management program for the historic resources in the WSRA is a function of BLM's indifference or of a consensus that the resources are not significant and, therefore, not worthy of more attention.

22-4 4. The bases of the evaluations that Alternative I will result in a "slight increase" in damage to historic resources from ORV traffic in the short term and a "decreased damage" in the long term and that Alternative II will result in "no change" in both the short and long term (pp. xxvi) are unknown. These evaluations are not supported either by data developed and reported by BLM or by studies of the effects of ORV traffic conducted by other Federal agencies. Contrary to the implications of the Draft, the effects of ORV traffic on soils, vegetation, and wildlife (and by extension on historic resources) has been documented as significant if not often disastrous by other Federal agencies. Further, it is common knowledge that collectors from Las Cruces, Alamagordo, and El Paso are very active. Thus, it can be assumed that opening most of the WSRA to ORV traffic will result in substantially increased ORV traffic probably also resulting in substantially increased collector activity. Accordingly, BLM's evaluations are highly questionable. In my opinion, the Draft's cavalier discussion of the effects of ORV traffic and of increased public access is disturbing and not in keeping with BLM's land and historic resources management responsibilities prescribed under Federal law and regulation. These evaluations suggest that, contrary to applicable law, BLM is not adequately disclosing the effects of different alternatives described in the Draft.

5. Related to comment 4, it is noted that the Draft states that "ORV use and camping are legitimate uses of public land" and that "ORV use and unrestricted camping does (sic) not appear to be causing extensive resource damage or creating conflicts with other users of public land throughout the Resource Area" (page 2-26). While the first statement certainly can be accepted as accurate in the most general sense, the statement does not take precedence where Federal law and regulation mandate responsibilities that in particular instances would negate the validity of the statement. Further, the second statement is completely unsubstantiated, for BLM does not report any data or studies which would document that historic resources are, or are not, being adversely effected by individuals engaged in ORV or camping activities. Accordingly, these two statements are misleading and self-serving, for they tend to deny any responsibility for BLM to evaluate the effects of ORV traffic and increased public access to areas that may contain substantial quantities of significant historic resources, resources for which it might be determined that management and protection was critical if BLM had more appropriate data.

22-5

6. A final comment concerns the statement on page 2-25 of the Draft: "Cultural resources will continue to be inventoried and evaluated prior to

22-3 All sites in the White Sands Resource Area are considered significant prior to archaeological surveys. Prior to any ground disturbing activity, an archaeological clearance will be conducted as outlined in 36 CFR 800.

22-4 These evaluations have been corrected. See revised Summary page xxvi. The land in question is currently undesignated as far as ORV use is concerned. Giving the land an open designation will not significantly change or increase the amount of use.

22-5 The conclusion that ORV impacts are generally not significant in the White Sands Resource Area was based on the determination that only small amounts of off-road use occur on public land in Sierra and Otero Counties as a whole. Where data are limited, knowledge of the area and professional judgment were used to infer environmental impacts (Draft page 4-1). BLM employees are in the field on a regular basis and have not observed significant ORV conflicts. Annually during deer hunting seasons (the peak ORV use periods), special patrols are made every day (including weekends) to monitor ORV use. Again, no significant ORV problems have been found. Data from the Hunter Access/Operation Respect Report for the 1984 hunting season, dated March 3, 1985, document that ORV impacts were not a significant factor in resource degradation in Southern New Mexico. Out of 1,304 visitor contacts, only 3 complaints were directed toward ORV use, and one of those instances was legitimate use of an ORV on a road or trail. There has not been an application for an organized ORV event in the White Sands Resource Area since October, 1982. Future ORV use increase is predicted to be insignificant (Draft page 3-31).

22-6 surface disturbing activities." Since other federal agencies have determined that ORV traffic often significantly disturbs the surface of the land, does this statement in the Draft mean that cultural resources will be inventoried and evaluated prior to opening the WSRA to ORV traffic. If the statement is not to be so interpreted, then it is misleading with regard to disclosing BLM's lack of intent to locate, evaluate, and protect historic resources from the adverse effects of opening substantial new acreage to increased ORV traffic and public access.

In my opinion, the above comments illustrate that BLM's Draft EIS for the WSRA is an inadequate and incomplete disclosure of the effects of the various alternatives on historic resources in the WSRA. Accordingly the Draft neither fulfills the broad purpose of NEPA requirements nor addresses the independent and specific legal and regulatory requirements that prescribe BLM's responsibilities to locate, evaluate, and protect significant historic properties characteristic of an area of an undertaking.

Thank you for the opportunity to comment on the Draft,

Glen D. DeGarmo, Ph.D.
Archaeologist
5721 North Stanton Street
El Paso, Texas 79912

cf: State Historic Preservation Officer, New Mexico
Advisory Council on Historic Preservation
El Paso Archaeological Society
New Mexico Archaeological Council
Environmental Protection Agency

22-6 The land in question is currently undesignated as far as ORV use is concerned. Giving the land an open designation will not significantly change or increase the use in the area. The intent of designating the majority of the White Sands Resource Area as "open" does not warrant such detailed inventories based upon the lack of documented past ORV problems on those lands. If, however, an intensive ORV use area is planned (i.e., a "play" area), a cultural resource survey will be conducted as outlined in 36 CFR 800. All public land will continue to be monitored for ORV use and adjustments in ORV designations made as needed.

United States Department of the Interior
NATIONAL PARK SERVICE
SOUTHWEST REGION
P.O. Box 728
Santa Fe, New Mexico 87501

IN REPLY REFER TO

L7619(SWR-PE)

MAY 24 1985

Memorandum

To: Area Manager, White Sands Resource Area, Bureau of Land Management, Las Cruces, New Mexico

From: Associate Regional Director, Planning and Cultural Resources, Southwest Region

Subject: Review of Bureau of Land Management Draft White Sands Resource Area Resource Management Plan/Environmental Impact Statement (DES 85/6)

We have reviewed the subject document and find that it adequately addresses the concerns of this agency.

We appreciate your past coordination efforts with the Superintendent, White Sands National Monument, and recommend that you continue to consult with the Superintendent concerning any proposals which could affect the monument.

Sincerely,

49

Wildlife Management Institute

Suite 725, 1101 14th Street, N.W., Washington, D.C. 20005 • 202/371-1808

DANIEL A. POOLE
President
E. R. JAHN
Vice-President
E. L. WILLIAMSON
Secretary
WESLEY M. ERSON, Jr.
Board Chairman

May 24, 1985

Mr. Larry Nunez, Area Manager
White Sands Resource Area
1800 Marquess Street
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Nunez:

The Wildlife Management Institute is pleased to comment on WHITE SANDS RESOURCE AREA, DRAFT RESOURCE MANAGEMENT PLAN and ENVIRONMENTAL IMPACT STATEMENT, New Mexico.

We prefer Alternative III, Protection, because it provides fewer roads, less range development and less grazing. Those actions improve wildlife habitat at little expense to the taxpayer.

We object to Alternative I, Balanced (Preferred Alternative). It is too expensive, will greatly increase the subsidy to livestock permitees and increase the national debt.

Livestock have used this land for 200 years. Its present condition is due to excessive grazing. BLM now proposes to bail out the ranchers with a massive infusion of taxpayer money. It is time for a change. Let reduced grazing heal the land, rather than initiating massive "improvements" in an attempt to do the job. The predictions of effects of the plan are general, and there is no assurance the expenditures can accomplish the goal. Everything proposed is tentative, subject to a veto by the livestock permitees. Under this plan livestock will become even more dominant.

24-1

Alternative I will:

Increase AUM's	45,583
Land treatment will cost	$1,620,500 (Page D28)
Range development will cost	$1,030,500
Each new AUM will cost	$58.10
8 percent interest on a new AUM	$4.64
U.S. grazing fee for an AUM	$1.30
Subsidy for each of the 35 "I" allotments	$75,728

We wonder why the Bureau of the Budget and the taxpaying public stand still for this.

DEDICATED TO WILDLIFE SINCE 1911

24-1 As identified on Draft pages vii, 4-15, and C-1, 58,742 acres of public land have been identified for chemical treatments. The cost per acre is approximately $27.42. This cost is an average cost used in the Draft for analytical purposes and could vary from $17.50 per acre to $37.34 per acre depending on the actual number of acres treated and the pounds of active ingredient applied. There are 27 allotments identified for rangeland developments at a cost of $1,030,500 (Draft pages D-17 through D-20). This amounts to an average cost per allotment of $27,851. The costs for vegetation treatments and rangeland developments would be incurred in the short-term (over a period of 10 years). It should be recognized that these would be "one-time" costs and the benefits received would recur annually over the life of the improvement since the new rangeland developments and vegetation treatments in conjunction with implementing grazing systems would increase forage productivity and improve distribution patterns as well as improving ecological condition and ground cover. Other benefits received would be a decrease in wind and water erosion where ground cover is improved, erosion condition of watersheds would be improved, there would be an increase in desirable browse species, a small amount of additional habitat for waterfowl species, habitat conditions for the aplomado falcon and McGown's longspur would improve and the improving erosion conditions would decrease the rate of site destruction on an estimated 196 archaeological sites. Before funds are spent (Draft page 2-19), all rangeland improvements will be subjected to an economic analysis which will evaluate the costs and anticipated benefits over the life of the improvement. The highest priority will be assigned to those improvements which show anticipated benefits to exceed costs.

50

-2-

24-2 The draft is lacking in several ways. There is no section discussing irrevocable impacts. There is no section on monitoring. The only mention of the New Mexico Game and Fish Department is that it furnishes data. What are the state agency's goals? How do they compare with BLM goals? There is no monitoring plan, and provision is not made for the New Mexico Game and Fish Department to participate in monitoring.

Some specific comments follow:

24-3 Page XXV, Impact Summary, Alternative 1, Stocking levels. This is misleading--145,961 AUM is the preference level. The footnote explains this, but few people will read it. The number should be changed to 5 years average use.

24-4 Page XXVII, The estimated fair market value includes a capital value of BLM permits. We thought BLM was not allowed to consider this artifical value. You do here and in the economic discussions of each alternative.

24-5 Page 2-1 last paragraph. If your decision is to allow preference number, then it is a "non" decision and completely negates the plan.

24-6 Page 4-19. Why is there no plan or alternative to reduce livestock to increase production of preferred browse species for big game?

24-7 Page 4-28, 5th paragraph. A recognition by BLM of the capital value of a permit AUM. This should be removed.

These remarks have been coordinated with William B. Morse, the Institute's western Representative.

Sincerely,

Daniel A. Poole
President

DAP:sh

24-2 Irrevocable impacts are not discussed in a separate section but are discussed in Chapter 4, Environmental Consequences, wherever the impacts occur. Monitoring is also not discussed in a separate section but is discussed in Chapter 2, Management Guidance Common to All Alternatives, under the appropriate resources. Rangeland monitoring, which includes wildlife, is described on Draft page 2-17. Wildlife monitoring will also be conducted as needed [for example, in conjunction with Habitat Management Plans (HMPs)] and will be in cooperation with the New Mexico Department of Game and Fish (NMDGF). NMDGF and BLM goals are outlined in Operation Plan Part II, Management of New Mexico Wildlife 1981-1985, which is available for review in the White Sands Resource Area Office.

24-3 It was felt that either number could be misleading and a footnote would be needed for clarification in either case. Preference has to be used since that is what can be applied for until monitoring studies can be done and adjustments made if needed.

24-4 The estimated fair market value shown on this table is for the land which has been identified under the Land Tenure Adjustment issue. It is not to be confused with the capital value of a BLM permit. The increase in dollar value is due to the land tenure adjustments through sale or exchange and may decrease the permit value on public land since the land will transfer out of public ownership. The difference in the values between alternatives is due to the difference in acreages identified for land tenure adjustment. Please refer to Draft Appendix I-4 for additional information.

24-5 It is BLM's policy that adjustments in livestock numbers will not be made solely on the basis of a one-time inventory. If subsequent monitoring shows that adjustments in livestock numbers are necessary, decisions would be issued stating what changes would be needed.

24-6 The Protection Alternative (Alternative III) would reduce livestock grazing for the benefit of nonlivestock resources (See Draft page 2-7). The impacts of this alternative on preferred browse species for big game are discussed on Draft page 4-56. In addition, monitoring studies will determine areas of forage competition so that adjustments in forage allocation can be made (See Draft page 2-17).

24-7 The objective of the social-economic analysis is to estimate the impacts of the alternatives on those operators who utilize public land for grazing. When a ranch is sold, the public land is transferred for grazing based on the sale of base properties to which the public land grazing privileges are attached. Grazing privileges on public land do have borrowing and resale values.

THE ORIGINAL OF THE FOLLOWING
COMMENT WAS NOT REPRODUCIBLE

Bruce Martin
Box 207
Alamogordo, NM 88310

Larry Nunez
Area Manager, BLM
White Sands Resource Area
1800 Marquess Street
Las Cruces, NM 88005

Hello,

I urge you to classify the Sacramento Escarpment under the Protective Alternative Management Plan. This would eliminate further encroachment on this area by off-road vehicles and mineral developers.

I live at the base of the San Andres Canyon and enjoy the view of the mountains daily and enjoy hiking these rugged and magnificently beautiful canyons nearly every weekend.

I request that your office do all it can to acquire any private land in the area and protect it all from any further scarring and destruction that would occur if it were opened to ORV and mineral use.

Thank you for your time.

Sincerely,
/s/Bruce Martin

(1)

While Sands Resource Management Plan
Record of Public Contact on Input

George W. Rauch
Cave Springs Rt. Box 122
Carlsbad, N.M. 88220

I recommend taking the No Action. The studies that this impact statement are based on, are inadequate, and inaccurate. They give a completely wrong analasis of the end results of each proposal.

26-1 As an example; I have three ranches, the one which has the most improvements, the best livestock distribution, the best turf, and is actually in the most improved condition, was rated in poor condition by the study of this impact statement. Because the study was done on one small portion of the ranch where there is some very poor part with a lot of slope. The portion is poor, has always been poor & will always be poor no matter what anyone does or proposes.

This statement gives the impression

26-1 Within the three allotments (9012, 9047, and 9046), there are a total of 9 range sites and 5 vegetation types. BLM ran a total of 21 transects in order to obtain the necessary data. Please see Draft Appendix C-4, Methodology Modified Soil-Vegetation Inventory and Digitizing. Under the Proposed Plan (final page 1), a rangeland management program would be initiated on allotments that have a high potential for improvement and resolution of resource conflicts. Where information is lacking, unreliable, or if an agreement cannot be reached, an allotment-specific monitoring program will be initiated for a period of up to 5 years. The monitoring program will determine whether the goals and objectives of the Resource Management Plan are being achieved. If adjustments in livestock numbers are found to be necessary through monitoring, consultation with the permittee will be initiated to establish proper stocking rate, grazing treatments, rangeland developments, and vegetation treatments.

2

(2)

that the range is deteriorating + will continue to do so. This is wrong under the Taylor Grazing Act the range has actually improved, because of the individual ranchers management plans. Which he is in an excellent position to know what is needed, as he owns these + knows the individual need of his ranch. He has fenced + cross fenced, added waterings which control grazing of livestock + Wildlife. This has improved the range + is harvesting a valuable resource, which would otherwise go to waste. Wildlife number + quality has also improved as a result of this.

This impact statement goes on the assumption that livestock grazing is bad for the range + cutting livestock number will automatically improve the range. This is wrong, grass was made for grazing + trampling + it actually helps the grass to remain in a healthy condition. If under-grazed individual plants will become tall, but the overall stand of grass will thin out and become unhealthy + die out. I have a forest Service permit at this very time. Because the range is getting

3

(3)

into an unhealthy condition because of over use they are in the process of increasing my permit. There has also been a waste of a natural resource in these unharvested grass. If any one is interested I can take them to places on the Guadalupe river where there has never been any livestock at all, even in history. The land is not in a good condition as my range is, where livestock has grazed for years. An irreversable negative impact could result from the cuts proposed in the impact study. They will put many ranches over the line, of being uneconomical operations. This would put the ranches out of business. If he goes out of business all will suffer. The community will suffer loss of income, the country will suffer loss of production. The range will suffer from lack of use by livestock + lack of management. Wildlife will suffer from lack of water + their number would be greatly reduced. The ranches is one of the resources of the area + should be helped + cultivated instead of being harrassed. The best thing the BLM could do to improve the condition of the range is to reduce grazing

(4)

fee. This would give the rancher financial help + encouragement in his effort to improve the range.

I think my opinion on the impact statement should receive more consideration and have more influence than those of the general public. Because I am also part of the general public. But I am also the other land owner. These decisions also effect my private land. I also own the grazing lease on the effected Public land, so I should have more say so in these decisions than some one who is not directly involved, and does not understand the issues as well. Especially on issues of endangered plant + animals, which if promoted on Federal land, will also show up on my private land, and I may not want them on my land. As I see this impact study the only thing being addressed is the livestock industry. There is a very great adverse impact to the range from the general public, camping + hunting and especially from O.R.V. We are supposed to be improving and preserving the range. These O.R.V. have devastating and irreversable impact on the range, causing erosion + compaction + deterioration

(5)

to the round resource. These O.R.V. are an outright abuse of the land. There needs to be policy set now & policing established for the general public and these activities on the land. I propose that small unproducing tracts of poor land that do not produce any way be set aside for O.R.V. And then use not be allowed on any other land All the rest of the range should be restricted to off road travel.

The present elk number given in the report study are very low. The 15,000 that the study claim will be here as a result of the Divisadero cut, are in fact here now. And the effect of the proposed of the study would in reality cut the Wildlife number drastically of the ranches go out of business, because there would no longer be water for wildlife. Also there is plenty of feed for wildlife now. They are free to roam and go where the feed is best no matter which ranch got the most rain, they are free to go there and multiply as much as they want the only thing holding wildlife number down is the hunting pressure and predators. The predater would also increase without the ranches helping to keep them under control; they would also contribute to reduced game population.

26-2

26-2 The data for the existing 5,955 mule deer and 731 pronghorn antelope given in the Draft reflect public land only and were developed in cooperation with the New Mexico Department of Game and Fish (NMDGF). Forage allocated to mule deer total 14,281 to 30,234 animal unit months (AUMs), depending on the alternative. It has long been recognized that ranching has increased deer numbers by providing water. Overgrazing also increased deer numbers by allowing brush to increase, but at the same time, it contributed to the decline of other plant and animal species which are no less important. The BLM manages public land to maintain or improve wildlife habitats to provide the greatest sustainable game and nongame wildlife populations possible consistent with public need, multiple use, and local ecologic conditions. In most cases, there is room for improvement.

Predation is a naturally occurring ecologic role that most animals, except livestock have evolved with. In most cases, predation problems are brought on by modification of the natural dynamic equilibrium in a community. Such modifications are inevitable as man continues to use and develop natural resources.

Hunting pressure, to a certain extent, compensates for natural mortality in game species. It is the responsibility of the NMDGF to ensure that the total mortality does not exceed recruitment into the population.

(6)

Suggestion: ① I would like to suggest that each allotment have a designated camping area with posted signs. All hunters and campers should camp only in these areas so that the whole range will not be by these activities.

② O.H.V. traffic be allowed only in unproductive and designated areas, all other land should be closed to off road traffic.

③ Any brush control should be done chemically. And no plowing be done at all. Plowing does more damage than good.

④ I am against burning grass, unless it is done to control brush or other undesirable plants. Burning is not the proper tool to manage sacatone grass. It can be fenced and intensely grazed at proper times and increase the carrying capacity of the ranch, and greatly improve production. I have a private land pasture of less than 1/4 section of sacatone which will run over 100 pairs all summer. With this kind of proper management there is no need for burning.

Jorge Wesly Ranch

27-1

1. Land Tenure Adjustment - The maps provided for identification of areas selected for tenure adjustment should be augmented or replaced with maps having place names, roads, topographic features, etc., that can be used by the public to locate such areas. The maps provided by the Bureau of Land Management (BLM) have virtually no frame of reference. Most people do not navigate with blank township and range maps; without a frame of reference, the interested public cannot comment intelligently on the proposal to adjust tenure of 45,000 acres. If locating land boundaries on townships and range maps is necessary for accuracy sake, then I suggest these be retained and augmented by maps with place names, roads, and topographic features, etc., otherwise the result of not doing so would be to effectively camouflage the areas from public scrutiny. I further encourage BLM to consider ecological variables in land tenure adjustments, in particular the importance of pseudoriparian areas and the need for ecological buffer zones around urban areas (e.g., Alamogordo). Buffer areas are becoming recognized as being extremely important for absorbing urban related impacts (ORV use, shooting, predation by domestic cats and dogs) and protecting adjacent though more distant, relatively pristine areas from such impact.

27-2

2. Cultural Resources - Opening 1.7 million acres to unrestricted ORV use will definitely have significant, long-term, and cumulative impacts upon cultural resources. A discussion of this impact is inadequately presented. Site density is underestimated by perhaps a factor of 5. Data from Ft Bliss indicates a site density of about one site per 35 acres. Data from Kochelman (1984) indicate a motorcycle wheel base track will drive over and compact an acre of soil for every 20 miles driven, and a 4-wheel drive pick-up truck will drive over and compact an acre every six miles (figures based on field measurement). Thus, the increase in ORV users projected on page 3-31 of the EIS represents some 3,272 acres compacted, if each user only travels 20 miles a year (rather conservative, I would say), and vehicle miles are evenly distributed between motorcycles and trucks. At a site density of one per 35 acres, this results in 93 sites potentially impacted. This is a rough calculation, and greatly underestimates the number of ORV users and miles driven, but does provide some quantification of impact. What data did BLM use to estimate ORV impact? What about pot hunting? How were these data used in planning and decision-making and arriving at the preferred alternative, pursuant to the requirement of CEQ NEPA implementing regulations, 40 CFR, section 1500.2(b), which states "Environmental impact statements shall...be supported by evidence that agencies have made the necessary environmental analysis *?

As an example of the problem, you propose open ORV use of McGregor Range north of U.S. Highway 506. As BLM is certainly aware of, on several occasions within the past nine years the Prairie Dog Motorcycle Club has requested that BLM permit them to conduct enduros on this area. Within this same area are a number of pueblo villages, the largest of which may have contained some 600 people

27-1 The land status maps (Visuals A and B of the Draft) can be compared with the land tenure adjustments maps (Visual E and F of the Draft) to locate parcels proposed for disposal or exchange. Funding limitations do not allow for our publication of augmented maps. Topographic and land ownership maps are readily available to the public at nominal cost. The former may be obtained via the U.S. Geological Survey, Denver, Colorado, 80225. The latter are available at the BLM's Las Cruces District Office, 1800 Marquess Street, Las Cruces, New Mexico, 88005.

27-2 BLM is not "Opening 1.7 million acres to unrestricted ORV use". These lands have been undesignated in the past, or in effect "open", and significant impacts have not occurred because of the small amounts of off-road use. Formally designating the lands open will not significantly change or increase the use in the area. All public land will continue to be monitored for ORV use and adjustments in ORV designations made as needed.

The conclusion that ORV impacts are generally not significant in the White Sands Resource Area was based on the determination that only small amounts of off-road use occur on public land in Sierra and Otero Counties as a whole. As stated on Draft page 2-26, ORV use does not appear to be causing extensive resource damage or creating conflicts with other users of public land throughout the Resource Area. Therefore, we believe that resource conditions do not warrant widespread ORV limitations throughout the Resource Area.

As stated on Draft page 4-1, only significant impacts are discussed in the RMP/EIS. All impacts were considered in interdisciplinary team meetings during development of the RMP/EIS and documented on impact analysis worksheets. If the analysis determined that impacts would not occur or would be insignificant, those impacts were not discussed in the RMP/EIS.

Where data are limited, knowledge of the area and professional judgment were used to infer environmental impacts (Draft page 4-1). BLM employees are in the field on a regular basis and have not observed significant ORV conflicts. Annually during deer hunting seasons (the peak ORV use periods), special patrols are made every day (including weekends) to monitor ORV use. Again, no significant ORV problems have been found. Data from the Hunter Access/Operation Respect Report for the 1984 hunting season, dated March 3, 1985, document that ORV impacts were not a significant factor in resource degradation in Southern New Mexico. Out of 1,304 visitor contacts only 3 complaints were directed toward ORV use, and one of those instances was legitimate use of an ORV on a road or trail. There has not been an application for an organized ORV event in the White Sands Resource Area since October, 1982. Future ORV use increase is predicted to be insignificant (Draft page 3-31).

The Proposed Plan will limit ORV use to existing roads and trails for McGregor Range north of State Road 506 (116,000 acres) (See Final page 6).

(David Dibble, personal communication). Although BLM may not permit organized ORV events in this area, the previous club requests for the area indicate its desirability for ORV use, and surely suggests that unorganized ORV use can be predicted to be heavy. What will the impacts be to these sites- it is not even discussed in the EIS. It is very interesting that in the impact discussion, Section 4, pages 4-24 and 4-25, for example, you do not discuss impacts of ORVs to sites but instead discuss how resources will be protected by limiting ORVs in Special Management Areas; discussion of mitigation is fine, but in omitting a discussion of impacts of the remaining 1.6 million acres, you seem to intentionally avoid admitting to impacts and thus mislead the public and in effect are in noncompliance with NEPA.

27-2 (con)

3. Research Natural Areas - These areas were established by a joint memorandum between BLM, Fort Bliss, and the New Mexico State University. These areas are located on Otero Mesa, both to the north and south of U.S. Highway 506. The undisturbed nature of these sites make these areas of great importance to researchers studying desert grassland ecosystem structure and function in ecosystems unaltered by man's activities. Were these areas inadvertedly omitted from inclusion in Special Management Areas (pages 2-4 and 2-6), or does BLM plan to open these areas to off-road vehicle travel? If the omission was an oversight, what provisions will be undertaken as mitigation to protect these sites from vehicle incursion (fences, barrier, etc.)? If the intent is to allow ORV use of the areas, or not to erect barriers to incursion, you should so state and discuss impacts to these areas and to the long-term studies ongoing in these areas. Intrusion has already occurred on the area north of U.S. Highway 506 as evident by two sets of vehicle tracks observed in 1983 by the undersigned; fencing seems the only effective mitigation if unrestricted ORV use is approved in this area.

27-3

4. Ecological Resources - The basis for ORV impact evaluation and conclusions is undocumented; in fact, no discussion is even undertaken of ORV impact to vegetation or to state and federally listed endangered species. Impacts to soils and wildlife are said to be insignificant. There is no documentation supporting this conclusion, as required CEQ regulations section 1500.2(b). There are a great deal of data to the contrary (see Webb and Wilshire, 1978, 1983), as summarized below.

27-4

a. Overall impact of ORVs

Sheridan (1979) states that "There are, in reality, very few natural areas suitable for cross-country motorized recreation-that is, areas where the machines will either not cause considerable adverse effects on the soil, vegetation, and wildlife, or will not impair the recreational experience of others." Lathrop and Rowlands (1983) state that "The desert is not 'tough,' and restoration as a management objective is for all practical purposes unattainable as long as ORV activity occurs, even on an irregular basis," and that "The management of ORVs really cannot be attempted within the context of sustained yield or 'carrying capacity' as is often done with livestock grazing. Unlike ORV use, livestock grazing produces tangible benefits in the form of food production and proper management can maximize such production while minimizing environmental impacts. The strategies used may include some form of complex seasonal or rotational system, strict control of stocking rates, or a combination of these

27-3 These study sites (they have not been formally designated as Research Natural Areas) were covered in the McGregor Grazing EIS and carried forward in the RMP/EIS (See Draft pages 1-1 and 2-12). These areas are protected from grazing and will continue to be managed in accordance with the Cooperative Agreement of 1978 between the BLM, Fort Bliss, and New Mexico State University for preservation of the study sites. One site is fenced in and the other three sites have natural barriers and are partially fenced to protect these sites from livestock grazing. If ORV use becomes a problem, additional measures will be taken to protect these sites.

27-4 See response to Comment 27-2.

strategies designed to ensure that serious injury does not occur to the growth processes of the constituent rangeland plant species, all of which are to some extent exposed to herbivorous activity, domestic or native. Such management strategies cannot be applied to ORV recreation. Moreover, attempts to regulate numbers of ORVs within an area as one would adjust stocking rates would be difficult if not impossible. ORV recreation tends to require large areas of land which are not easily enclosed by fences or other devices, making enforcement of limits on user numbers a formidable task. ORV recreation is, therefore, a highly consumptive use of rangelands which is not conducive to sustained-yield management." A former director of BLM (Silcock, 1973) emphasized in testimony before a U.S. House of Representatives subcommittee that ORVs can cause damage to the whole gamut of lands administered by BLM and can affect soils, water, air, plants, animals, and all living things. Does BLM disagree? If so, on what basis?

The American Association for the Advancement of Science Committee on Arid Lands (1974) concluded that the present unregulated ORV use of arid areas is "a serious threat to the preservation of the environment in a desirable and stable condition...." Does BLM disagree? If so, on what basis?

In an environmental impact statement, the U.S. Bureau of Outdoor Recreation (1974) noted that practically no area of the public land is free from potential damage by ORVs and in some areas, where improperly or indiscriminately used, ORVs can cause great harm to man and his natural environment; and that even when properly operated, the impact may be great and, in many instances, irreversible. Does BLM disagree? If so, on what basis? Kochelman (1983) states that "In 1972, the problems were so apparent that the president issued Executive Order 11644 to control the use of ORVs on federal public lands. Federal agencies charged with public land management were directed to adopt policies to protect public resources, promote safety among all users, and minimize conflicts among various kinds of users.

In 1972, and every year since 1974, the U.S. Council on Environmental Quality has reported on ORV problems. In its fifth annual report, the Council (1974, p. 209) observed that "...the problem is still growing at an unprecedented rate, and virtually no effective new controls have as yet been accomplished." In its tenth annual report, the council (1980, p. 421) note that ORVs have continuing serious adverse impacts on public lands and that serious conflicts continue to exist between ORV users and desert homesteaders, hikers, scientists, and environmentalists." Does BLM believe these conflicts no longer exist?

The Geological Society of America (1977) Committee on Environment and Public Policy has considered the impacts and management of ORVs. After identifying the environmental impacts, the committee concluded (p. 6) that the harsh impacts of ORVs on the natural systems "have destroyed evolutionary gains of such antiquity that recovery will be exceedingly slow...that many delicate interdependencies between organisms and their habitats, having been obliterated by ORVs, can never be restored."

Your very own agency has recognized and commented on the significant negative effects of ORV traffic. For example, BLM (1980) identified 18 resources and uses in their final environmental impact statement and proposed plan for the 12 million-acre California Desert Conservation Area. Vehicle access and ORV use

are identified as having a significantly negative effect on 10 of these resources and uses. The resources identified as being negatively affected include air quality, soil, vegetation, wildlife, visual quality, cultural resources, Native American values, recreation, and livestock grazing. In addition, the BLM (1980) noted that "inadvertent losses to cultural and historical resources will occur."

Your own previous state director, Mr. Zimmerman, has commented on ORV conflicts (Zimmerman, 1978); he stated (at a time when there were fewer ORVs than now) "this unregulated (ORV) use has caused conflicts with other land uses which we have not been able to control with our existing limited staff." BLM should identify and discuss these conflicts in the EIS. The U.S. Bureau of Outdoor Recreation (1976) in its draft environmental statement on implementation of Executive Order 11644, notes that: "in practice, particularly in the case of the BLM, which lacks the staff to effectively patrol its vast holdings, unauthorized off-road vehicle use will occur in these areas in the interim. Some of these lands will later be found to contain unique and fragile biophysical, archeological, or historic resources, and will be designated as closed to ORVs. Certain of these resources will have been damaged or destroyed irreversibly as a result of ORV use during the undesignated period."

b. Soils

Lathrop and Rowlands (1983) state that "Experiments have shown that one pass of a four-wheel track on wet soil creates soil compaction sufficient to significantly reduce the cover and density of several species of annual plant species in the Mojave Desert. Most species declined as mechanical impedance of the wet soil exceeded 1800 kN m , a value which also appears to be a threshold vale for agricultural crops. Soil strength values above 2500 kN m probably exceed the tolerance level of most plant species, native, introduced, cultivated, or otherwise."

Kochelman (1983) and Webb and Wilshire (1978;1983) point out that ORV effects on soil include significant and negative levels of compaction and disruption of the soil surface, destruction and dispersal of surface stabilizers (algae, desert pavement, organic materials, and cementing salts), reduced infiltration capacity and soil water holding capacity (which increases soil aridity and can prevent seedling germination and survival and can cause adult plant mortality), increased frequency and intensity of rainfall, and increased fugitive dust.

Gile and Hawley (1968) and others have shown that most of the soils (with the exception of coppice dunes and recently deposited alluvium) have developed during the Pleistocene in wetter climates different than those of today, and that such soil-forming processes will probably not be occurring in southern New Mexico today. This is of special concern since the clay and silt size fines that make up argillic horizons and which greatly contribute to a soil's water holding capacity are easily exposed and eroded by ORVs and probably will not be regenerated until a new ice age brings increased precipitation.

c. Vegetation - Your own agency (BLM 1975) and studies cited by Webb and Wilshire (1978) indicate that even single ORV pass can eradicate 100 percent of annual flora in the track and can have substantial impact on sensitive perennial shrubs. Webb et al (1983) stated that vegetation damaged by ORVs in

the southwest deserts is either relic (especially grasslands) or propagates slowly. "It is clear that the full-recovery time required to ameliorate severe ORV impacts probably should be estimated in terms of human lifespans."

d. Wildlife - Studies by Brattstrom and Bondello (1983) have shown that noise generated by ORVs can cause permanent hearing loss in kangaroo rats and lizards and affect spadefoot toad behavior such as to cause mortality. The U.S. Bureau of Outdoor Recreation (9176) reports that ORV users frequently frighten both wild and domesticated animals. The frightened animals either are often driven from shelter and are thereby exposed to predators, or their feeding, resting, reproducing, and rearing of young is disrupted. When the disruption is severe, the wildlife population may be reduced below the natural carrying capacity of the land. Where ORV use on the land is heavy, the impact on wildlife lasts longer and is harder to correct than the impacts from harassment. Bury and Luckenback (1983) find that arid areas closed to ORV use have more species of animals, more individuals, and more biomass. Stebbins (cited in Webb and Wilshire, 1983) estimated that about 80 percent of terrestrial vertebrates in arid areas (exclusive of birds and larger mammals) are sequestered underground during the winter months - November through February - and that a large percentage are probably within the first 12 inches (30 cm). He suspects that many animals are being crushed by ORVs and die unseen; that since the early 1970s the number of animals (vertebrate and invertebrate) destroyed by ORVs in arid areas number in the millions; and that deaths are the result of direct vehicle impacts or habitat deterioration.

Bury et al (1977) discovered that extensive reduction in wildlife accompanies the destruction of plant life by ORVs. It was found that "moderate" ORV use reduced the biomass of an area's terrestrial vertebrates by almost 60 percent. Heavy-use areas suffered a 75 percent decline in vertebrate biomass, a 45 percent decline in the number of such animals, and about a 10 percent drop in the species present. Stebbins and Cohen (1976) find that desert washes are fragile natural environments, which contain many plants and animals, some of which are restricted to this habitat. In their survey of ORV use of washes along state or federal highways in the desert, Stebbins and Cohen found the "growing incidence of ORV damage truly alarming." The long-term ecological consequences of widespread destruction of small mammals are especial noteworthy.

The above reference to desert wash sensitivity is particularly troubling in view of your statements on page 4-17, (Wildlife) that no ORV designations would have any significant "influence" (impact?) on any habitat types, and then states that if ORVs concentrate in pseudoriparian areas, an "insignificant" increase in shrub destruction would occur. Is BLM in the possession of data that counters Stebbins' research and conclusions of habitat fragility? Has ORV use intensity or effects on pseudoriparian areas been studied and quantified by BLM? Why does BLM state (page 4-19) that the "most important habitat sites...are riparian and pseudoriparian" and then suggest that ORV use has an insignificant effect on pseudoriparian? What kinds of wildlife utilize such habitat, and for what purpose? Would avian reproduction, feeding, and courtship use be affected by ORV concentration in these areas?

27-5 A recent reconnaissance by the undersigned of 13 kilometers of pseudoriparian (desert wash) habitat on McGregor Range north of U.S. Highway 506 revealed recent use of a little over nine kilometers (about 70 percent) of the washes by both cycle and four-wheel vehicles and some damage to desert willow, apache plume, and mesquite thickets. How does this 70 percent use correspond to BLM's data for this habitat, which comprises only .5 percent of the 1.8 million acres? You state on page 4-21 that intensive ORV use can cause a loss of habitat, but that this would be minor. This conflicts with referenced studies. What BLM data supports this conclusion - i.e. trapping studies in treatment and control, sight transects, etc.?

27-6 How will unlimited ORV use affect specific endangered species? For example, on page 3-30 you state that a management recommendation for the state of New Mexico endangered Trans-Pecos rat snake is "protect species from collection;" state how this is going to be done, and how unrestricted ORV use will not damage the species habitat and enhance collecting opportunities. The varied bunting (state endangered also) management recommendations are to protect pseudoriparian habitats; how will this be done? Will not permitting ORV use of pseudoriparian areas be in direct conflict with this recommendation? In fact, are these "Management Recommendations," intended to be implemented at all, or are they stated as something that would be good to have but unlikely to be implemented (for staff, budgetary, etc., reasons)? At this stage of the decision-making process, the resource manager should know what can and cannot be done, and the public, if they are to intelligently partake in the NEPA process as intended, should have the benefit of this information.

27-7 On page 2-23, you state that seasonal restrictions on vehicles may be necessary near raptor nests. Does vehicle traffic interfere with raptor nesting behavior, as you imply? How are nesting raptors to be located in the 1.8 million acres? Is not such data realistically impossible to obtain? Given unrestricted ORV use, how will you prevent vehicle intrusion near nests after ORV users have become habituated to free roam in such areas? Do you really believe restrictions of this nature are feasible, assuming nests can even be located? If not feasible, what impacts will occur to nesting raptors due to ORV use near nests?

27-8 e. Recreational Conflicts - nowhere in this document does BLM discuss impacts to recreation as a result of unrestricted ORV use. This must be addressed and incorporated into planning for ORV area designation. For example, according to Rockelman (1983), one of the most commonly voiced criticisms of ORV users concerns the noise created by the machines. Even when the noise is muffled to the legal level, many people feel that it is intrinsically offensive in natural settings and an invasion of privacy and solitude. Many people enjoy the out-of-doors for its solitude and are angry when the sounds of ORVs disrupt this quiet.

The "sounds" of silence dominate arid areas; your own BLM (1974) environmental impact statement noted that: "Silence is a resource. These sounds which man typically associates with the pristine natural environments are perceived by the senses as solitude. The solitude of the desert is one of its...valuable resources."

27-5 An estimate of use of a given habitat is useless without estimating the degree of that use. We believe that ORV intensity of use will be low, especially on McGregor Range where it is already limited, and this low intensity will not cause significant problems.

27-6 The predicted low level of ORV use through the long-term will not cause any significant change in habitat conditions for threatened or endangered species. Any individuals collecting endangered species for sale would continue to do so with or without ORV restrictions.

27-7 The statement on page 2-23 applies also to BLM permitted activities where BLM can regulate the use of vehicles closely, based on field checks, such as seismic exploration. ORV use would likely disturb raptor nests, however ORV use is not anticipated to occur, in the long-term or short-term, in amounts that significantly affect raptor nesting over a large area or within, as yet, unidentified crucial raptor nesting areas. Should such problems be identified, appropriate seasonal restrictions could be used.

27-8 See response to Comment 27-2. Impacts to recreation as a result of ORV use were determined to be insignificant in the White Sands Resource Area as a whole and were, therefore, not discussed in the RMP/EIS.

The noise of an ORV shatters that solitude. Sounds generally associated with arid areas are very subtle and muted, such as light winds through shrubs, and they give the feeling of solitude. They are normal sounds associated with natural conditions. Man-made noises, however, have become commonplace throughout some of the arid areas. Most ORVs emit noise loud enough to disturb or annoy persons in their general vicinity. The contrast between this noise and the quiet surroundings serves to magnify the hearer's perception of the distance. Again, your own agency (BLM, 1974) stated that "the noise level generated by a single motorcycle is approximately 10,000,000 times greater than that experienced by a person in a quiet suburban resident area...." Ten million times greater; will this cause any disturbance to a hiker, or a bird watcher, let alone the bird?

Kocklean further states that the desert is becoming more popular for extensive nonconsumptive uses and that ORV use conflicts with these nonconsumptive uses. The wide-ranging presence and complete mobility of the ORV are usually the source of complaints. For example, under the best of conditions, as in a forest, the noise from the average motorcycle can be heard more than 4,000 feet (1 km) away, and a loud one, over two miles (3 km) away (Michigan State University Department of Park and Recreation Resources, 1971).

The nature of desert topography both channels noise (canyons, washes) and prevents attenuation of noise due to lack of acoustical barriers over much of the desert. Therefore, noise from ORV traffic will intrude upon other recreation, whether one vehicle or 10 - the presence will be inescapable. In effect, ORVs shrink the amount of land available to other recreational users. If the ORVs stay on specific trails, then the amount of shrinkage is confined to the trails and the land immediately adjacent to them - they become the corridors of ORV noise. If they roam anywhere in an area, and they do, then the amount of land available to the quiet-seeking, non-ORV recreationalists in that area shrinks to zero (Sheridan, 1979). ORV use, if unregulated, becomes an infringement on other people's right to recreation. ORV user needs cannot always be met if one is to consider the needs and rights of others in a multiple-use context. It is an irreconcilable difference. Whereas a backpacker might intrude upon a bird watcher's sanctuary, such intrusions are rare and repairable. However, the mobility and numbers of ORV users disturb all other recreational users.

Note too that most ORV users are courteous, in particular those who are members of organizations. However, as Kocklean states, hikers and campers do not trek far into the wilds to hear a chorus of gasoline engines, however polite the driver is, however well-tuned their engines. Direct encounters with ORV machines simply are not compatible with the quality of outdoor experience being sought by a majority of Americans. It is a mistake to believe that skilled, courteous, well-intentioned ORV users can operate ORVs with minimal effect on the environment and with no conflict with other users. The U.S. Bureau of Outdoor Recreation (1976) reports that there is a widespread and severe conflict between ORV users and other users. "Most nonmotorized forms of outdoor recreation are disrupted or hurt by the operation of ORVs nearby, especially for those whose recreational goals include solitude, tranquility, relaxation, observation of wildlife, and the appreciation of wild environments." Does BLM disagree? If so, why?

In light of the above discussion, your statement, on page 4-23 that open ORV designation will result in continued availability of recreation opportunities to all groups and users seems highly unlikely. The opportunities will be biased towards ORV users. If conflicts with other uses are to be avoided, ORV use must be separated from them. Areas specifically selected and managed for ORVs cause the fewest user conflicts. BLM has evidently not recognized such conflicts (noise, etc.) nor considered such in the Resource Area planning process and the EIS, and therefore, should do so in the final EIS.

27-9 You state on page 1-6 that open ORV use will be permitted with the following constraints: "protection of the resource, promotion of all users, and minimization of conflicts among various users." In view of the above discussion of conflicts between ORV users and other recreationalists, precisely how does BLM intend to minimize "conflicts among various users"? This is an important area of impact mitigation; procedures to minimize conflicts should have been developed in view of the fact that the decision has already been made to open vast areas to ORV use.

5. Alternatives:

27-10 On page 2-26, you state that limiting ORV use was eliminated from detailed study because: 1) ORV use is legitimate use of public land; and 2) ORV use does not appear to be causing extensive resource damage or creating conflicts with other users of the public land. Regarding 1) above, strip mining and cattle grazing are recognized and legitimate uses of public lands, but are conducted with strict controls; I am sure BLM agrees that unrestricted grazing can cause irreparable ecological damage. The same goes for ORV use - a use is not legitimate if its unrestricted and unmanaged use will harm resources and conflict with other recreational uses. Unless BLM has hard data at hand that clearly contradicts the evidence of impacts associated with ORV use as cited herein, I strongly recommend a new alternative be studied as discussed below. As regards 2) above, what monitoring programs and baseline ecological data does BLM have that supports no effect? Has BLM conducted ORV use censuses, in particular during weekends and holiday when ORV use is at its peak? I doubt many personnel are in the field (1.7 million acres of it) during these periods; I have never seen your personnel on weekends, but have surely seen many ORVs. I would sincerely hope that BLM does have this kind of data, otherwise on what basis can BLM justify opening up 1.6 million acres of public land to the potential impacts associated with ORV use? The data, figures, etc., that formed the basis for this decision should be clearly stated in the EIS pursuant to section 1500.2(b), CEQ regulations.

27-11

27-12 These regulations further state that the alternative section of an EIS is "the heart of the environmental impact statement. Based on the information and analysis presented in the sections on the Affected Environmental (s1502.15) and the Environmental Consequences (s1502.16), it should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public" (section 1502.14). This does not appear to have been achieved by BLM. Section 1502.16 of these regulations requires discussion of indirect impacts and cumulative impacts; this has not been provided for as regards ORV use. In particular, cumulative effects should be discussed (sections 1508.7 and 1508.8 apply here also).

27-9 ORV use will continue to be monitored throughout the White Sands Resource Area in general (43 CFR 8342.3) and intensively in specific areas (Draft page 2-24) during the deer hunting seasons. Impacts will be monitored and implementation adjusted as necessary (Draft page 4-1). Interim or emergency ORV designations can be implemented in problem areas. BLM regulations prohibit operating an off-road vehicle on public land "in a manner causing, or likely to cause, significant, undue damage to, or disturbance of, the soil, wildlife, wildlife habitat, improvements, cultural, or vegetative resources or other authorized uses of the public lands" (43 CFR 8341.1 (f)(4) and 43 CFR 9268.3 (a)(2)(vii)(D)). However, the RMP Proposed Plan will provide recreation opportunities for non-motorized uses [such as the Sacramento Escarpment (ACEC)] and the experiences which those recreationists are seeking will be available. It would not be reasonable to restrict ORV use throughout the entire Resource Area based solely upon the potential of ORV conflicts with other users.

27-10 ORV use will not be unrestricted and unmanaged. See response to Comment 27-9.

27-11 See response to Comment 27-2.

27-12 See response to Comment 27-2. All impacts were considered, including cumulative and indirect impacts, but only significant impacts were discussed in the RMP/EIS. Those impacts are presented in Chapter 4, in Table 2-4, and in the Summary.

27-13

How does the EIS comply with section 1502.2(d) of the CEQ regulations, which state "Environmental impact statements shall state how alternatives considered in it and decisions based on it will or will not achieve the requirements of sections 101 and 102(1) of the Act and other environmental laws and policies", in particular with reference to Executive Order 11644, Use of Off-Road Vehicles on the Public Lands. This Executive Order states in part; "An estimated five million off-road recreational vehicles - motorcycles, minibikes, trail bikes, snowmobiles, dune-buggies, all-terrain vehicles, and others - are in use in the United States today, and their popularity continues to increase rapidly. The widespread use of such vehicles on the public lands - often to legitimate purposes but also in frequent conflict with wise land and resource management practices, environmental values, and other types of recreational activity - has demonstrated the need for a unified Federal policy toward the use of such vehicles on the public lands; it is the purpose of this order to establish policies and provide for procedures that will ensure that the use of off-road vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various users of those lands." and, "...regulations shall direct that the designation of such areas and trails will be based upon the protection of the resources of the public lands, promotion of the safety of all users of those lands, and minimization of conflicts among the various uses of those lands. The regulations shall further require that the designation of such areas and trails shall be in accordance with the following-

(1) Areas and trails shall be located to minimize damage to soil, watershed, vegetation, or other resources of the public lands.

(2) Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats.

(3) Areas and trails shall be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors."

How does the preferred alternative achieve the requirements of this Order (pursuant to 1502.2(d))?

I request that BLM address a new alternative as discussed below, for the following reasons:

27-14

a. Justifiable and acceptable alternatives relating to partial ORV closure encompassing variable acreage (e.g., 600,000 acres open to ORV use as sacrifice areas, the remainder closed to protect resources) have not been discussed as required by NEPA and the CEQ implementing regulations, section 1502.14(a).

27-15

b. Some ORV impacts were not even discussed, i.e., recreation conflict, noise, vegetation, etc.

27-13 The RMP/EIS achieves the requirements of Sections 101 and 102(1) of the National Environmental Policy Act (NEPA) and other environmental laws and policies through the BLM Planning Process as stated on Draft page 1-1 and described on Draft pages 1-3 and 1-4.

The Preferred Alternative was intended to create and maintain conditions under which man and nature can exist in productive harmony, and thus is consistent with the basic Federal environmental policy set forth in Section 101(a) of NEPA. There are six specific environmental objectives of Federal actions set forth in Section 101(b) of NEPA, as follows.

1. "To fulfill the responsibilities of each generation as trustee of the environment for succeeding generations."
2. "To assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings."
3. "To attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable or unintended consequences."
4. "To preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice."
5. "To achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities."
6. "To enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources."

The Preferred Alternative and the other alternatives were evaluated in the Draft RMP/EIS to help each reader determine if the six objectives set forth in NEPA were achieved. At the time the Draft was printed, BLM selected the Balanced Alternative as the one which we felt most closely met these objectives. Through public review, the public gave input on the Preferred Alternative and other alternatives which helps the decisionmaker arrive at a decision which will satisfy the NEPA objectives. The Proposed Plan (See Final pages 1 through 8) is a result of the decisionmakers review of all public comments on the Draft and reviewing the impacts of each alternative. Comments will be received on the Proposed Plan for 30 days before any action is taken to finalize the plan.

The Draft RMP/EIS complies with Section 1502.2(d) of the Council on Environmental Quality regulations in that this document and its discussion of alternatives shows how public land would be designated for ORV uses. The Bureau has established policies and procedures to comply with Executive Order 11644. The regulations found in 43 CFR Subpart 8340 (44 Federal Register 34836, June 15, 1979) established those policies and procedures for ORV designations. The Bureau has further developed Manual 8340 (Release 8-18, May 25, 1982) to expand that guidance. The 8340 Manual establishes and requires that designations of public land will be accomplished through the Bureau's Land Use Planning Process, which in turn is the process under which the White Sands Resource Area RMP was developed.

27-14 Alternatives for widespread ORV limitations throughout the Resource Area were considered but were eliminated from detailed analysis for the reasons discussed on Draft page 2-26.

27-15 See response to Comment 27-2

27-16 c. Other impacts of ORV use were assessed as insignificant; this is in direct conflict to published scientific literature conclusions and even BLM's own former state director's statements and BLM studies.

27-17 d. Data used for ORV impact conclusions or for preferred alternative selection were not provided in the document; if accurate data do not exist, how could environmental concerns be considered in decision making? Does BLM believe that of the 1.7 million acres, only some 86,000 acres (less than five percent of the area) contain significant archaeological sites, important wildlife habitat, or ecologically sensitive areas (preferred alternative)? If so, what evidence does BLM have in support of this conclusion? If no data exist, why did BLM make this management proposal decision?

27-18 e. Although many recommendations are made for reducing ORV impact (e.g., wildlife), these are not identified as mitigation as required by section 1502.14(f) and 1502.16(h).

27-19 f. The lack of supporting data regarding ORV impact conclusions, and the fact that such conclusions conflict with known studies, including some by BLM itself, suggest that the data upon which alternative selection decisions were made may be erroneous.

I request that BLM consider another alternative not yet considered; placing reduced acreage open to unrestricted ORV use, number of acres and locations undetermined for the present, but selection of areas and acreage to be based upon suitability of the area(s) as ORV sacrifice areas as regards environmental resources. These resources would include wildlife, vegetation, soils, noise, archaeological sites, and conflict with other recreation types. I suggest a monitoring program be established to monitor both intensity and impacts of ORV use, perhaps broken down by two and four-wheel drive type, as motorcycles have far greater potential for noise-related disturbance of wildlife and other recreationalists. Monitoring is a legitimate land-management tool as evidenced by BLM's monitoring of grazing (page 2-17) and should be instituted for ORV use as well, as directed by Executive Order 11644 (which states "the respective agency head shall monitor the effects of the use of off-road vehicles on lands under their jurisdictions. On the basis of the information gathered, they shall from time to time amend or rescind designations of areas or other actions taken pursuant to this order as necessary to further the policy of this order."

27-20

The program would function much as does BLM's California desert plan. Monitoring and ORV intensity estimation should consider not only local resident ORV users but those from El Paso, Las Cruces, etc. Rockelman states that tens of thousands of Texans travel two or three hours to New Mexico in order to drive their ORVs. In Ballinger-Deer Park Canyon in California, Nash (1976) found that nearly 70 percent of those interviewed drove from 1 1/2 to 2 1/2 hours to reach the open-use areas.

In the meantime, BLM should limit ORV use until more impact data is available, and archaeological sites and ORV sensitive ecological areas are identified. Recognizing the fact that BLM has a deadline as regards this EIS, I suggest that rather than hold up the entire process, BLM issue a supplemental EIS sometime in the future as monitoring results are acquired.

27-16 See response to Comment 27-2.

27-17 See response to Comment 27-2.

27-18 Mitigation measures and standard stipulations are included in Chapter 2, Management Guidance Common to All Alternatives, as stated on Draft pages 2-12 and 4-1. This is the mitigation which has the support of management. While some other recommendations may have been for reducing ORV impacts, they are not included in the basic mitigation which management supports. The impacts shown for the various alternatives are adverse and unavoidable as identified in Chapter 4 of the Draft.

27-19 See response to Comment 27-2.

27-20 See response to Comment 27-9.

If BLM chooses not to limit ORV traffic over the resource area in the interim but rather intends to limit areas as impact data becomes available, ORV use may be impossible to control. ORV users's habits will have been formed relative to specific areas and closure will fly in the face of established ORV recreational patterns.

There is ample precedent for closure. For example, your own agency has closed areas in California. All water resource development projects administered by the U.S. Army Corps' Chief of Engineers are closed to ORV use except those areas and trails specifically designated for use. The U.S. Bureau of Reclamation has closed most of its land to ORV use. The U.S. Department of Defense decided that all its 26 million acres (10.5 million ha) of land and water would be closed to ORV use except those areas and trails specifically designated for such use. The department's decision was partially based on an assessment that "Practically no area on Department of Defense land would be free from potential danger by ORV use." Several states have also restricted ORV use. Washington has virtually prohibited all cross-country ORV use on state land; ORVs must stay on designated roads and trails. Connecticut forbids ORV use on government-owned land without the written permission of the agency under whose control such land falls, either state or municipality. Massachusetts has restricted ORV use to designated trails. In Indiana, ORVs have been banned from all state lands since late 1972.

Thank you for the opportunity to comment on this EIS.

Sincerely,

Kevin L'Ecuyer

67

References

American Association for the Advancement of Science, Committee on Arid Lands. 1974. Off-road vehicle use. Science 184(4135):500 , 501.

Brattstrom, B.H., and M.C. Bondello. 1983.
Effects of off-road vehicle noise on Desert Vertebrates. In: Webb and Wilshire (Ed.), Environmental Effects of Off-Road Vehicles; Impacts and management in Arid Regions. Springer-Verlag. 534 pp.

Bury, R.B. and R.A. Luckenback, and S.D. Busack. 1977.
Effects of off-road vehicles on vertebrates in the California desert. U.S. Fish and Wildlife Service, Wildlife Research and Rept., Washington, D.C. pp 2-19.

Bury, R.B. and R.A. Lukenback, 1983.
Vehicular recreation in arid land dunes; biotic responses and management alternatives. In: Webb and Wilshire (Ed.), Environmental Effects of Off-Road Vehicles; Impacts and Management in Arid Regions. Springer-Verlag. 534 pp.

Council on Environmental Quality. 1974, Fifth Annual Report, pp. 207-210; 1975, Sixth Annual Report, pp. 243-245; 1976, Seventh Annual Report, pp. 93-94; 1977, Eighth Annual Report, pp. 81-83; 1978, Ninth Annual Report, pp. 303-305; 1979, Tenth Annual Report, pp. 421-422; 1980, Elevench Annual Report, pp. 348-357. U.S. Government Printing Office, Washington, D.C.

Geological Society of America. 1977.
Impacts and Management of Off-road Vehicles. Report of the Committee on Environment and Public Policy. Geological Society of America, Boulder, Colorado, 8 pp.

Gile, L.H., and J.W. Hawley. 1968.
Age and comparative development of desert soils at the Gardner Spring radiocarbon site, New Mexico. Soil Sci. Soc. Am. Proc. 32:709-716.

Kockelman, W.J. 1983.
Chapter 1, Introduction; Chapter 21, Management Concepts: In: Webb and Wilshire (Ed.), Environmental Effects of Off-Road Vehicles; Impacts and Management in Arid Regions. Springer-Verlag. 534 pp.

Lathrop, E.W., and P.G. Rowlands. 1983.
Plant ecology in deserts; An overview. In: Webb and Wilshire (Ed.), Environmental Effects of Off-Road Vehicles; Impacts and Management in Arid Regions. Springer-Verlag. 534 pp.

Michigan State University Department of Park and Recreation Resources. 1971.
Proceedings of the 1971 Snowmobile and Off the Road Vehicle Research Symposium. Technical Report 8, East Lansing, Michigan, 110 pp.

Nash, A.E.K. 1979.
Understanding Planning for OHV Recreation: The 1978-1979 Washington Interagency Committee for Outdoor Recreation, Tumwater, Washington, 159 pp.

Sheridan, D. 1979.
Off-Road Vehicles on Public Land. Council on Environmental Quality. U.S. U.S. Government Printing Office, Washington D.C., 84 pp.

Silcock, B. 1973.
Testimony before the Public Lands Subcommittee of the Interior and Insular Affairs Committee of the House of Representatives, February 9, 1973.

Stebbins, R.C., and N.W. Cohen. 1976.
Off-road menace. Sierra Club Bulletin, July-August 1976, 38 pp.

U.S. Bureau of Land Management. 1975.
Evaluation Report, 1974 Barstow-Las Vegas Motorcycle Race. Sacramento, California, 108 pp.

U.S. Bureau of Land Management. 1980.
The California Desert Conservation Area. Final Environmental Impact Statement and Proposed Plan. California State Office, Sacramento, California, September 1980, 273 pp.

U.S. Bureau of Outdoor Recreation. 1974.
Draft Environmental Statement, Department Implementation of the Executive Order 11644 Pertaining to Use of Off-Road Vehicles on the Public Lands. January 10, 1974, p. 9.

U.S. Bureau of Outdoor Recreation. 1976.
Final Environmental Impact Statement on the Departmental Implementation of Executive Order 11644 Pertaining to Use of Off-Road Vehicles on the Public Lands. U.S. Department of the Interior, Washington, D.C. 119 pp.

Webb, R.H., and H.G. Wilshire. 1978.
A Bibliography on the Effects of Off-Road Vehicles on the Environment. U.S. Geological Survey Open-File Report 78-149, 15 pp.

Webb, R.H., and H.G. Wilshire. 1983.
Environmental Effects of Off-Road Vehicles; Impacts and Management in Arid Areas. Springer-Verlag. 534 pp.

Webb, R.H., H.G. Wilshire, and M.A. Henry. 1983.
Natural recovery of soils and vegetation following human disturbance. In: Webb and Wilshire (Ed.), Environmental Effects of Off-Road Vehicles; Impacts and Management in Arid Regions. Springer-Verlag. 534 pp.

Zimmerman, A.W. 1978.
New Mexico State Director, U.S. Bureau of Land Management. Letter to David Sheridan, February 24, 1978. Referenced in: Webb and Wilshire (Ed.), Environmental Effects of Off-Road Vehicles; Impacts and Management in Arid Regions. Springer-Verlag. 534 pp.

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY AIR DEFENSE ARTILLERY CENTER AND FORT BLISS
FORT BLISS, TEXAS 79916-5000

REPLY TO ATTENTION OF

28 MAY 1985

Directorate of
Engineering and Housing

Mr. Larry Nunez, Area Manager
White Sands Resource Area
1800 Marquess Street
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Nunez:

This installation has reviewed the White Sands Resource Area Draft Environmental Impact Statement on the Resource Management Plan, dated March 1985. Because Fort Bliss has concerns with both security and safety, as well as environmental concerns, we cannot concur with opening any portion of McGregor Range to unrestricted off-road vehicle use. Enclosed are this installation's comments.

Please contact Mr von Pinger, (915) 568-7930 or 568-5502, in reference to our comments.

Sincerely,

Robert K. Frink
Colonel, Corps of Engineers
Director, Engineering and Housing

Enclosure

May 24, 1985

Port Bliss' Comments on the

Draft EIS, Resource Management Plan, dated March 1985

Environmental Concerns

28-1

1. Pursuant to the second paragraph, page 2-24, Recreation, you state that "Areas not designated in an alternative as limited or closed would remain open to ORV use." Your preferred "Balanced" and "Production" alternatives apparently designate McGregor Range as open to unrestricted recreational off-road vehicle travel (pages XXiii; 2-5; 2-6). There is no mention of the Research Natural Areas established by a joint memorandum between the BLM, Ft Bliss, and the New Mexico State University. These areas are located on the Otero Mesa portion of McGregor Range, both to the north and south of U.S. Highway 506. The undisturbed natire of these sites makes these areas of great importance to researchers studying desert grassland ecosystem structure and function in ecosystems unaltered by man's activities on the installation, and in particular to Fort Bliss ecologists evaluating environmental impacts of military activities. Were these areas inadvertently omitted from inclusion in Special Management Areas (pages 2-4 and 2-6), or does BLM plan to open these areas to off-road vehicle travel? If the omission was an oversight, what provisions will be undertaken to protect these sites from vehicle incursion (fences, barriers, etc.)? If the intent is to allow ORV use of the areas, Ft Bliss must object to such a designation; the installation is conducting long-term environmental impact studies within the areas which would be invalidated if the study sites were intruded upon by ORVs.

28-2

2. From a general environmental standpoint, Ft Bliss questions opening of McGregor Range to unrestricted recreational ORV use. Ft Bliss has placed large areas of McGregor Range off limits to off-road military vehicle travel (both wheeled and track) in recognition of the cumulative impact such land use can cause to both arid ecosystems and cultural resources, and also at the request of BLM (see Section (10) of the Proposed Agreed Upon Changes to the June 7, 1974 Memorandum of Understanding Between the Department of the Interior and the Department of the Army to Provide for Co-use Grazing on the McGregor Range in New Mexico, signed 22 Jul 761. It seems rather contradictary and environmentally unsound to open the areas to recreationalists while denying access to military wheeled vehicles which would be engaged in legitimate training activities. In the Final Environmental Impact Statement, Land Use Withdrawal, McGregor Range, Fort Bliss, Texas, August 1977, Ft Bliss agreed not to use the range for off road military maneuvers until such time as appropriate archaeological survey and mitigation actions had been completed. This agreement was in response to Federal law and regulation pertaining to protection of historic properties. In Ft Bliss' opinion, BLM has not conducted adequate field survey designed to locate and protect significant historic properties located throughout the McGregor Range portion of the White Sands Resource Area; this same general concern is expressed by the State Historic Preservation Officer of New Mexico in the letter at Appendix H, Page H-5 of your Draft EIS. Accordingly, Ft Bliss questions whether or not opening the range to ORV traffic without additional survey and mitigation efforts would violate applicable Federal historic resources law and regulation.

28-1 See response to Comment 27-3.

28-2 See response to Comment 27-2.

May 24, 1985

Safety and Security Concerns

1. Fort Bliss cannot concur with opening of any portion of McGregor Range to unrestricted off-road vehicle use due to safety and security concerns. The area north of U.S. Highway 506 and Otero Mesa is designated as a secondary surface danger zone for Hawk and Nike Hercules missiles and the SGT York gun system. Portions of Otero Mesa and McGregor Range south of U.S. Highway 506 are SGT York's direct impact area; in addition, lasers used with the SGT York system pose a serious ocular safety hazard in these areas.

2. Classified activities occur on McGregor Range. There are no barriers to keep vehicles off McGregor Range, hence control of the randomly roaming public would be impossible because of the large amount of land in question. Compliance with U.S. Army regulations covering access to impact areas is not discretionary as regards this matter. It is, therefore, imperative that ORV use be restricted on McGregor Range.

STATE OF NEW MEXICO
GOVERNORS' CABINET
DEPARTMENT OF
FINANCE AND ADMINISTRATION
OFFICE OF THE SECRETARY

TONEY ANAYA
GOVERNOR

DANIEL H. LOPEZ

428 STATE CAPITOL
SANTA FE, N.M. 87503
TELEPHONE (505) 827-3060

May 29, 1985

Mr. Larry Nunez, Area Manager
White Sands Resource Area
1800 Marquesas Street
P. O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Nunez:

Thank you for affording the State of New Mexico the opportunity to comment on the United States Bureau of Land Management White Sands Resource Area Draft Resource Management Plan and Environmental Impact Statement. Attached to this letter are comments submitted by the following state agencies: Department of Agriculture; Department of Game and Fish; Office of Cultural Affairs, Historic Preservation Division; Museum of New Mexico; and the Natural Resources Department. Please consider the recommendations, requests and questions contained in those letters as being those of this office and the Office of the Governor. While these are statements from individual agencies, I would ask that the principles of multiple-use and sustained yield, as required by the Federal Land Policy and Management Act of 1976, be upheld.

There are three areas of concern I would like to emphasize here for your inclusion in the final document: herbicide use, the protection of cultural resources, and the social and economic conditions impact section.

29-1 Herbicides

The Department of Game and Fish, Natural Resources Department and the Historic Preservation Officer recommend that the Bureau of Land Management address in greater detail the application and monitoring process, and the effect of, a herbicide spray program on endangered species of plants, wildlife, closed water basins and other water resources, and cultural sites. In keeping with the policies of this administration, I respectfully request that a comprehensive plan for the application, monitoring, reporting of the use of herbicides, and a response plan for misuse of herbicides, be included in future environmental and planning documents.

71

29-1 We recognize that herbicides, cultural resources, and social and economic conditions are major concerns to the State of New Mexico. Responses to those concerns are given in the following replies to comments from the individual State agencies.

29-1 (cont'd)

Cultural Resources

Mr. Thomas W. Merlan, the State Historic Preservation Officer, has grave concerns about the ability of making long-term land use decisions for this Resource Area without conducting an additional, more comprehensive archaeological survey. Specific response to the recommendations made by Mr. Merlan in compliance with federal responsibility for cultural resources pursuant to the National Historic Preservation Act is hereby requested.

Social and Economic Conditions Impact

It is of particular interest to this administration that a multiple use scheme be used in any land use plan devised for reqources contained in the State of New Mexico. The flexibility found in such a plan would encourage this state to expand its economic horizons, become independent from any one industry or resource, and be prosperous. For that reason, I request that the Final Resource Management Plan and Environmental Impact Statement include in the social and economic conditions analysis for all alternatives the impact anticipated on all the population in the Resource Area.

I, too, would like to express the gratitude and respect for the fine work that went into development of these documents. We look forward to working with you on this and other projects.

Sincerely,

DANIEL H. LOPEZ
Secretary

DHL:eqr

Enclosures

cc: William P. Stephens, Secretary
New Mexico Department of Agriculture, w/encl.
Leo Griego, Secretary
Natural Resources Department, w/encl.
Harold Olsen, Director
Department of Game and Fish, w/encl.
Thomas W. Merlan, Officer
Historic Preservation Office, w/encl.
Curtis Schaafsma, Museum Specialist
Museum of New Mexico, w/encl.
Susan Tixier, Policy Analyst
Department of Finance and Administration, w/encl.

See previous page for response.

Department of Agriculture

GOVERNOR'S CABINET

TONEY ANAYA
Governor

Box 3189, NMSU Campus
Las Cruces, New Mexico 88003
Phone: (505) 646-3007

WILLIAM P. STEPHENS
Secretary

May 16, 1985

03.40 Tixier

Department of Finance and Administration
Clearinghouse
State Capitol Building
Santa Fe, New Mexico 87503

Attention Ms. Susan Tixier

Dear Sirs:

Enclosed is a letter containing our comments on the White Sands Resource Area Draft Resource Management Plan Environmental Impact Statement.

If there are questions we will be glad to discuss them.

Sincerely,

William P. Stephens

WPS/rw

Enclosure: White Sands Resource Area comments

Department of Agriculture
GOVERNOR'S CABINET

TONEY ANAYA
Governor

Box 3189, NMSU Campus
Las Cruces, New Mexico 88003
Phone: (505) 646-3007

WILLIAM P. STEPHENS
Secretary

May 16, 1985

03.40 Runea.Ltr

Mr. Larry Runea, Area Manager
White Sands Resource Area
1800 Marquess Street
P. O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Runea:

This letter is to provide comments on the Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) for the White Sands Resource Area.

The Bureau of Land Management (BLM) has performed a creditable job in the preparation of this document. The thoroughness of BLM in developing alternatives and assessing environmental impacts is to be commended. Accordingly, these comments are intended to contribute constructively toward the professionalism already evident in the RMP/EIS.

The following comments pertain to the assessment of alternatives:

1. The No Action alternative conveys the impression that, a) current use and stewardship of allotments by permittees is improper, inadequate, or damaging to land resources, b) grazing management exists only under BLM supervision, such as allotment management plans (AMPs), and c) range improvements will be nonexistent under No Action.

29-2

The RMP/EIS states that ecological condition and forage value will decline under the No Action alternative. This statement is made despite BLM's recognition of potential improved management practices by operators (p. 4-63) and voluntary reductions in livestock numbers (p. 4-64) during periods of adverse climatic conditions. If management adjustments by permittees in response to climatic changes cannot prevent range deterioration, how certain is BLM that their actions will be more successful?

29-2 We did not intend to imply that the stewardship of all allotments by permittees is improper, inadequate, or damaging, nor that permittees not under Allotment Management Plans (AMPs) were operating without some form of grazing management. However, a series of photographs taken at the same photo point in 1951, 1962, and 1981 within the Las Cruces District indicate that what is stated is true. Rangeland condition is indeed deteriorating under the present level of grazing use. Any grazing systems of non-AMP operators would be documented or formalized. Under the No Action Alternative, current livestock grazing management would continue with no major adjustments. The eight allotments which are currently under approved implemented AMPs would be managed intensively, while those not under AMPs would be managed as they are at present. New rangeland improvements would be implemented on a request basis by permittees.

29-2 (cont'd)

The RMP/EIS frequently refers to BLM's current or proposed implementation of grazing management on ANP or Category I allotments. This incorrectly implies that operators under No Action or on allotments without explicit BLM imposed grazing systems have not and will not implement some form of grazing management.

Finally, the RMP/EIS concludes that "No new rangeland improvements would be proposed..." (p.xvii) under the No Action alternative, effectively ignoring the continuing contributions of the Range Betterment Funds toward rangeland improvement.

29-3

2. We are concerned BLM's current and projected budgets will not be sufficient to implement many of the projected range improvements under either the Balanced or Production alternatives. Accordingly, we favor the integration of selected management approaches from each of the No Action, Balanced, and Productioo alternatives. This will ensure appropriate recognition of successful permittee stewardship and will provide management flexibility in light of probable BLM budget reductions. In particular, Category I allotments should be recategorized in all instances in which operator stewardship is deemed adequate or superior.

29-4

3. Livestock grazing in the Percha Creek Riparian Area will be eliminated under the Balanced and Protection alternatives. The impact of this proposed action (pp. 4-3 and 4-48) is not adequately addressed in the RMP/EIS. The fencing of the Percha Creek Riparian Area will result in the disruption of the historic grazing use of the adjacent grazing allotment. We recommend BLM consider options to the complete fencing of this riparian area. In part, these options include limited fencing of selected riparian sites or deferred grazing to provide protection to impacted riparian vegetation.

29-5

4. Each of the RMP/EIS alternatives, with the exception of No Action, specify short-term reductions in AUMs. We do not disagree with BLM's contention that five-year monitoring results may indicate the need to adjust stocking rates. However, we find the inclusion of short-term AUM reductions in the RMP/EIS to be presumptuous, misleading, and without supportive data.

Short-term AUM predictions for the Balanced, Production, and Protection alternatives should be treated in a manner analogous to the No Action estimation. Under each alternative, the five-year average (135,261 AUMs) should be inserted, along with a "less than or equal to" sign. This modification would incorporate BLM's belief that short-term AUM reductions are probable, while at the same time, avoiding the false precision of the current, nonsubstantiated predictions.

29-3 The categorization of allotments is a negotiable matter between the permittee and the Area Manager during the consultation process. The reason for categorization is to expend funds where the greatest potential for improvement exists. In addition, a Benefit-Cost analysis will set priority for each project for the implementation schedule. The current and projected budgets may not be adequate regardless of the category selected. There may be instances in which the operator stewardship is satisfactory, yet there are resource conflicts which necessitate the allotment being placed in an "I" category and managed intensively.

29-4 See response to Comment 8-1.

29-5 For analytical purposes, it was assumed that there would be a lower level of grazing use to determine the economic impacts of reductions should the monitoring studies indicate a need for reductions. This lower number does not mean that animal unit months (AUMs) would be reduced. Each case would be individually determined based on consultation with the permittee and target group, as well as resource data from monitoring studies. The No Action Alternative objective would be to maintain a status quo through current management direction and existing land use plan decisions. Alternatives I (Balanced), II (Production), and III (Protection) represent a reasonable range of options among multiple use management programs. The alternatives range from favoring production to favoring protection to reflect issues involved.

29-6

5. On page 3-28 under the subheading "Small Game," jackrabbits and cottontail rabbits are mentioned. Although this is a relatively minor technicality, these two species are not game animals under New Mexico state law. They would be more appropriately mentioned under the "Nongame" subheading.

29-7

6. Under none of the alternatives is rodent control mentioned as a potential action in achieving improved range condition.

Control of kangaroo rats or prairie dogs per Interagency Animal Damage Control Guidelines may be a necessary action in order to achieve goals of improved range condition or maintenance of range condition on some allotments. If it is not mentioned in the EIS, will rodent control not be authorized if found to be necessary at a later date?

In addition to the preceding assessment of RMP/EIS alternatives, we have specific methodological and technical comments:

29-8

1. The RMP/EIS alternatives are partially evaluated in terms of predicted changes in ecological site condition and forage value. The monitoring procedures to be followed by BLM will measure the vegetation parameters that determine these two characteristics. However, we are unclear as to the interpretation given by BLM to each of these measurements of site condition. Will management be keyed to ecological condition class or to forage value? Managing for one or the other could result in significantly different conclusions concerning range condition and appropriate carrying capacity.

Although ecological condition class is well established and used extensively, we question its scientific applicability to lands which have no corresponding range site descriptions. Extrapolation of existing range site descriptions to land areas exhibiting only general similarities can result in erroneous judgments concerning ecological condition class. In contrast, forage value represents an alternative assessment of vegetation condition which is independent of assumptions of climax and which reflects the response of vegetation to grazing impact. We recommend BLM key livestock management to forage value, except in those cases where management for climax composition is required or deemed preferable.

29-9

2. BLM will be implementing a five-year monitoring project to estimate carrying capacity of allotments included in the RMP/EIS. Will the monitoring cease after five years or will it be continuous, allowing possible modification of estimated carrying capacities in light of long-term climatic influence on vegetation? We are not convinced a five-year monitoring period is sufficient to arrive at accurate estimates of carrying capacities.

29-10

3. We do not believe that apparent range trend, based on a single observation period, is a useful analytic device for describing current vegetation dynamics or evaluating past or present range management.

29-6 Jackrabbits and cottontail rabbits are not in fact legal game animals under State law. However, the heading nongame implies species that are not hunted, whereas, small game implies species that are hunted.

29-7 Future rodent control may be considered on public land by inclusion into the Animal Damage Control (ADC) Plan, which is reviewed and revised annually by BLM, Fish and Wildlife Service, New Mexico Department of Game and Fish, and New Mexico Department of Agriculture to reflect new data, current policies, and changing situations. The ADC plan must meet criteria outlined in the Interagency Animal Damage Control Guidelines with which the New Mexico Department of Agriculture should be familiar.

29-8 The forage value rating is based on the present plant composition of desirable, intermediate, and least desirable species which considers the palatability and preference of each of the different plants found on a particular site. Ecological condition rating is a comparison of the present vegetation to the potential for an existing site. Management decisions will be based on the needs for watershed protection, wildlife habitat, and livestock forage. Each grazing allotment will be considered on its own needs and in some cases, the management objectives and goals may be met or may be better served by maintaining the site in something less than a good or excellent ecological condition class.

BLM is now in the process of developing resource value ratings based on seral stage, which for grazing purposes, is normally not the climax or potential natural community. These resource value ratings will be developed for wildlife as well as livestock and would describe qualitatively (excellent, good, fair, poor) the value of a specific vegetation community in relationship to a particular use (i.e., forage condition, erosion). BLM is also developing methods to interpret seral stages for resource value ratings.

29-9 Intensive monitoring will continue for a period up to 5 years. If after that time, adjustments in grazing use are initiated, a less intensive effort will be made through the 5-year implementation period. After a base grazing capacity level has been determine, short-term adjustments may be needed either upward or down based on variations in yearly precipitation. Funding levels limit the length of time spent on intensive monitoring. In addition, the weakest link in our monitoring effort is receiving actual use records which are a major need in determining grazing capacity based on forage utilization. BLM conducts condition and trend studies as mandated by the Public Rangelands Improvement Act.

29-10 We agree that trend in rangeland condition can only be determined by measuring changes over time. Generally, the longer the time, the greater the confidence in trend determinations. However, in some cases, it may be necessary to establish what the apparent trend is before long-term trend data are available. Trend studies on allotments with Allotment Management Plans have been conducted for approximately 10 years.

Mr. Larry Munes, Area Manager
May 16, 1985
Page 4

29-10 (cont'd)

Reliable trend estimates should be based on time series data. We are concerned that estimates of apparent trend (p. 3-13) were used to justify the conclusion of future range deterioration under the No Action alternative.

29-11

4. The EIS recognizes rainfall as the "overriding influence" on range trend and that "...upward and downward trends occur during periods of favorable and unfavorable climatic conditions" (p. 3-15). In light of this statement, how does BLM intend to separate the confounding factors of climate and management? To what extent are observed trends really natural cyclical phenomena corresponding to climatic patterns and independent of current range practices? The evaluation of permittee stewardship, as well as the assessment of BLM grazing management, will necessitate the seperation of these factors. By what means will BLM accomplish this analysis, particularly in regard to the five-year monitoring program?

In summary, we request that BLM, a) recognize nonformal management contributions by permittees in the formulation of alternatives; b) re-evaluate riparian area management strategy in Percha Creek; c) revise short-term AUM reduction predictions to reflect current data limitations; d) clarify the use of ecological condition class and forage value and give consideration to increased utilization of the latter measurement; and e) address more carefully the determination and use of range trend, particularly as it has influenced the assessment of alternatives and will influence evaluation of permittee and BLM performance during and after the five-year monitoring period.

We appreciate the opportunity to present our comments and we hope they will contribute toward the refinement of the White Sands Draft RMP/EIS.

Sincerely,

William P. Stephens

WPS/kh

29-11 See response to Comment 29-9. The effect of drought on vegetation was discussed on Draft pages 3-19 and 3-20. As indicated on Draft page 4-8, grazing studies in the Southwest show a need for change in management along with proper stocking rates in order to obtain effective results in rangeland improvements. It is recognized that variations in yearly precipitation have a pronounced effect on forage production and changes in rangeland condition. The BLM would welcome and use any information available on what effect the various intensities, duration, and timing of precipitation occurrence have on vegetation growth. However, there is very little of this type of information available for this area. At this time, our only solution is to use a common sense approach to making adjustments from one year to another based on an analysis of the available precipitation data over the 5-year monitoring. BLM will not be making adjustments based on trend.

STATE OF NEW MEXICO
NATURAL RESOURCES DEPARTMENT
Santa Fe 87503
(505) 827-7835

TONEY ANAYA
GOVERNOR

LEO GRIEGO
SECRETARY

May 27, 1985

Mr. Larry Nunez, Area Manager
White Sands Resource Area
1800 Marquesee Street
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Nunez:

Thank you for the opportunity to comment on the Draft White Sands Resource Management Plan/Environmental Impact Statement (RMP/EIS) which outlines alternatives for managing public lands in Otero and Sierra Counties, New Mexico. After reviewing the RMP/EIS the Natural Resources Department staff have the following comments, concerns and recommendations.

The RMP/EIS does not cover all the management planning possibilities and alternatives being considered by the Bureau of Land Management (BLM). The actual management plan of the White Sands Resource Area is dependent not only on the RMP/EIS, but also on several previous land use plans decisions and decision records as listed in Appendix K. Without all the documents at hand it is difficult to analyze the entire scope of the management alternatives.

We were pleased to see your recommendation that the Sacramento Escarpment be designated as an Area of Critical Environmental Concern (ACEC). The area has many of the special land qualities and characteristics which would make it suitable for wilderness if it met the 5000 acre requirement. The ACEC designation will help preserve these special values and provide another area for wilderness recreation.

The proposed management of the rangelands for livestock forage was professionally written in the RMP/EIS. We support your effort to improve all grazing allotments to their best capacity. However, we do share the New Mexico Game and Fish Department's concern that the proposed range improvements on the public lands may not provide sufficient forage and/or ground cover for our wildlife. The document states that it is unknown if availability of browse is currently limiting big game numbers. If it is a limiting factor, then the assumptions on numbers of big game in relation to various use alternatives can not be substantiated. This would require further reductions in livestock numbers to reach target goals for big game.

29-12

"The Natural Resources Department is An Equal Opportunity Employer"

29-12 The BLM intends to cooperate to the fullest extent with the New Mexico Department of Game and Fish to ensure compatibility of rangeland improvement projects and wildlife species habitat needs. Uncertainty of current livestock forage allocations and how they affect wildlife forage allocations will be addressed through monitoring as described on Draft page 2-17.

Mr. Larry Nunez
May 27, 1985
Page Two

Four issues were identified for consideration in the RMP/EIS; Rangeland Management, Special Management Areas, Land Tenure Adjustment, and Access. Since we would like to assure that the State's natural resources are used to their best potential, we wondered why a minerals and energy development issue was not included in the planning process. Since you have stated that "The potential for locatable mineral resources is moderate to high in many areas throughout the Resource Area." (pg 3-6), why are these resources not being specifically identified in the RMP/EIS? 29-13

In the management guidance common to all alternatives section of Chapter 2 - Alternatives we support your goal of consolidating public land holdings in a blocked-up pattern of land ownership (pg 2-13). We would suggest that some of the consolidation be done by trading state sections for BLM sections. Your fire management criteria (pg 2-25) is good and we appreciate the use of a well managed prescribed burning program.

The treatment of the parts on visual resource, wilderness, recreation, cultural resources, wild burros, and access in the common guidance section of Chapter 2 - Alternatives are superficial. When these topics are discussed in the various alternatives there is not sufficient detail to determine the entire consequence on the topic in the proposed management plan. We would like to see a more detailed treatment of these multiple uses considered in any resource area management plan. 29-14

In chapter 4-17, we disagree with the statement "If ORV's concentrate in pseudoriparian areas,there could be an insignificant increase in shrub destruction. "Pseudoriparian or xeroriparian areas are high in wildlife values and impacts go beyond loss of vegetation. In Chapter3-17, the RMP states that pseudoriparian areas had the highest Mule Deer use of any SHS. 29-15

The balanced alternative recommends the building of 238 miles of new roads in the resource area for improved access for recreational use which would result in a change 52,000 acres (pg 4-23) from semiprimitive nonmotorized (SPNM) class to the semiprimitive motorized (SPM) class. We would like to know why 238 additional miles of roads are needed for recreational use. We question the emphasis on motorized recreational use while there is no mention of nonmotorized dispersed recreational uses which we consider an equal multiple use of the area. We would like to be assured that there will not be increased off-road vehicle usage that would lead to detrimental impacts such as soil erosion, inadvertent destruction of cultural resources and T&E plants, etc. 29-16

The balanced alternative states that brush control and fencing rangeland improvements would impact known cultural sites in the Alamo mountains, Salt Basin, Twin Buttes area and along the Butterfield trail. It also states that in the long-term that trampling would increase in the area which would lead to a

29-13 Minerals and energy development was not an issue in the White Sands RMP/EIS because those concerns were covered in previous documents. Minerals decisions and guidance are discussed on Draft pages 2-14 and 2-15 and minerals decisions carried forward from previous documents are contained in Technical Report II.

29-14 Visual resources, wilderness, recreation, and cultural resources were not issues in the White Sands RMP/EIS and therefore were not covered in great detail in the document. In addition to the common guidance section of Chapter 2, information on these resources is provided in Chapter 3 and in Appendices F, G, and H of the Draft and the significant impacts to the resources are discussed in Chapter 4. Additional information on these resources is available in the White Sands Resource Area Office. Wilderness is currently being covered in separate documents, as stated on Draft page 3-32.

Additional information on wild burros is found on Draft page 3-20 and in the Existing Management Situation section of the Management Situation Analysis, available for review at the Las Cruces District Office.

The extent to which roads will be built or easements acquired will depend on future funding. Resource values and public opinion will be considered on a case-by-case basis, as each road project is examined. Also, see the Access section on Draft page 1-5.

29-15 Pseudoriparian areas are high in wildlife values and are susceptible to disturbance; however, ORV use is not occurring in significant amounts at present (Draft page 3-31) and is not anticipated to increase significantly through the long-term (Draft pages 3-31 and 4-23). We do not believe the present or future ORV use will constitute a significant problem. If such a problem becomes evident, it will be corrected.

29-16 Providing motorized access to vast areas of public land is consistent with allowing a wider range of multiple-use opportunities not only for recreational uses but others such as mineral exploration and rangeland administration by both grazing permittees and the BLM. Properly planned access can also benefit nonmotorized dispersed recreational users by providing means of reaching areas previously restricted due to lack of entry rights or easements.

Mr. Larry Nunez
May 27, 1985
Page Three

29-17 moderate increase in artifact breakage. We strongly recommend that you consult with the State Historic Preservation Office to ensure legal compliance with the National Historic Preservation Act and implementing of regulation 36 CFR 800.

In the discussion of water in Chapter 3 - Affected Environment the primary use indicated is by livestock and wildlife (pg 3-9). It is our understanding that Alamogordo now uses part of the Tularosa Basin as a portion of its watershed and is planning to use more of the Tularosa and Salt Basins (Tularosa-Three Rivers area) for

29-18 expansion of their industrial water use. There is no mention of this fairly significant water use and proposed water use in the RMP/EIS.

The social and economic conditions section for all alternatives only considers the impact on the livestock operators. The

29-19 demography section of social and economic conditions in Chapter 3 - Affected Environment states that agriculture, forestry, fisheries and mining sectors accounts for only 6.4% of the total employment in the Resource Area (pg 3-41). Table 3-21 (pg 3-43) indicates that farm income is 3.9% of the total personal income earned in the Resource Area. The RMP/EIS does not address the impacts on the remaining 93% of the population in the social and economic conditions analysis in any of the alternatives.

Herbicide spraying is recommended in several alternatives, including the preferred balanced alternative. There are two federal candidates located in areas proposed for spraying. While both species are listed in Appendix C-12 there is no mention of them in the discussion of the spraying impacts.

One of the areas identified for spraying is the type locality and only known range of a shrubby federal candidate species known as Lepidospartum burgesii. This species is at present known only from, or has potential habitat in the Alkali Lakes region north,

29-20 northeast and east of Dell city Texas at Townships 24,25,26 S and Ranges 18-19 east. It is highly likely that a spray such as Triclopyr or Tebuthiuron would impact this species.

The second category 1 federal candidate occurring within a proposed spraying area is Sophora gypsophila var. guadalupensis . This plant is a broadleaf, shrubby species that occurs on limestone soils. Its actual locations and potential range include most of Townships 23,24,25 south and Ranges 18,19,20 east. From the described effects of the sprays it is highly likely that Sophora would be adversely effected.

At present, both of these species are federal candidates and are under review for consideration for listing as endangered. Until this point there was not a major threat to their existence, save their great rarity. The advent of these spraying programs suggestsa severe and immediate effect upon both species and would indicate an immediate course of listing them as endangered spraying is approved. Paul Knight of the Heritage Program

80

29-17 Prior to any ground disturbing activity, an archaeological clearance will be conducted as outlined in 36 CFR 800.

29-18 Draft page 3-10 states the total water depleted annually in Otero County is estimated to be 380 acre-feet by livestock and wildlife consumption and evaporation from earthen stock tanks. These are primary water uses on public land. Granted, the city of Alamogordo and Holloman Air Force Base use a significantly greater amount of water, but these were purposely omitted from the RMP/EIS because they are not public land uses of water.

29-19 The impacts to the remaining 93 percent of the population were analyzed by performing a regional economic analysis on the Resource Area economy which identifies the major sectors affected and associated employment and income changes as a result of the Rangeland Management issue. The regional analysis included a sectoral analysis of 88 disaggregated sectors within the Resource Area economy. As discussed on Draft page 4-1, only significant impacts were discussed for each alternative. In addition to the Range Livestock sector, the primary sectors affected were the Retail Trade, Eating and Drinking Places, and New Construction for the Balanced Alternative (See Draft page 4-30). Under the Production Alternative, the aforementioned sectors as well as the Maintenance and Repair Construction sector were the primary sectors affected (see Draft page 4-45). The Protection and No Action Alternatives did not cause any major changes in employment or income levels in the Resource Area economy (see Draft page 4-60 and Draft page 4-67, respectively). The No Livestock Grazing Alternative primarily affected the Range Livestock sector; Retail Trade sector; Food, Feed Grains, and Grass Seeds sector; Eating and Drinking sector; and the Wholesale Trade sector for a total decline of approximately 41 jobs and a decrease of $3M,000 within the Resource Area economy (see Draft page 4-76). The remaining sectoral changes for all the alternatives were not discussed in the Social and Economic section in Chapter 4 of the Draft due to their small amount of changes experienced; however, they did have an effect on the overall changes to income and employment for each alternative. For additional information, refer to Technical Report Y-2, Regional Analysis Using U.S. Forest Service IMPLAN Model.

29-20 See also Draft page 2-19, paragraph 4. Environmental impacts will be identified through site-specific environmental assessments and measures taken to mitigate potentially adverse environmental impacts for each specific treatment location.

Mr. Larry Nunez
May 27, 1985
Page Four

29-20 (cont'd) recommends that no areas east of R 17 E be included in the spraying areas. If BLM has questions on the candidate species, Paul can be reached at 827-7865.

29-21 The RMP/EIS does not address in sufficient detail the application process for the herbicides. There is no mention of the types of controls which should be used or the monitoring which should accompany the spraying operation. It is not clear whether or not the entire area identified in the RMP/EIS will be sprayed or if only portions of the identified areas will be sprayed as a result of the site specific environmental assessment mentioned in the RMP/EIS. Prior to any herbicide spraying we recommend that a site specific application plan be written which lists the proper controls and contains sufficient on-site monitoring provisions and the assurance that the plan will be followed.

29-22 It is not clear whether or not there would be a detrimental impact to the water supply in the discussion of the herbicides effect on the water resources in Chapter 4 - Environmental Consequences. "The herbicides would not leach farther than maximum infiltration of precipitation into the soil, thus would not contaminate underground water tables..." (pg 4-5) "Herbicide application for control of mesquite and creosotebush would present a potential for polluting water resources." (pg 4-6) We would like to be assured that all water resources will not be adversely affected in any manner if the herbicide application is approved.

Herbicide products do contaminate central closed water basins. Since the RMP/EIS indicates that that there are no drainage outlets for the water basins in resource area special consideration must be given to the herbicide application process. We would like the Bureau of Land Management to have an in-depth study and monitoring process of a number of selected sites which would specify the mitigation and prevention programs for herbicide contamination.

29-23 The RMP/EIS states that it will take from 1 to 3 years to kill 40% to 60% the brush after application of the herbicides, depending on which type of herbicide is used. The document does mention "that forb growth would probably begin increasing in the third growing season." (pg 4-13) There is no discussion on the percentage of ground that will be without cover after the herbicide application or the actual length of time it will take for the soil to become productive with the desired ground cover.

29-24 Tebuthuiron, a pellet herbicide applied by aerial spraying, normally has a half life of 12 to 15 months. The herbicide is dependent on rainfall for dispersal into the soils; without sufficient rain the pellets remain inactive on the ground surface. Studies by Elanco Products Company have shown that half life values in arid environments range from 2 to 7 years. Since the climate in southern New Mexico is arid and the lack of rain may

81

29-21 Before implementation of vegetation treatments, site-specific environmental analysis will be prepared to assess any impacts. Actual acreage will be developed for each allotment through consultation with the permittee and other interested parties. Direction for use, and precautions during use, will follow those set by the manufacturers of the herbicides. See Draft page 2-20, Vegetation Treatment and Appendix C-3 of the Draft, Guidelines for Vegetation Treatments, page C-4. Additional information is included in Technical Report III, Vegetation, available for review at the BLM Las Cruces District Office.

29-22 Ground waters will not be adversely affected since water tables in the treatment areas are below the depth to which herbicides percolate in the soil. In addition, numerous precautions will be taken to reduce the chance of surface water contamination: (1) site-specific EAs will be conducted prior to herbicide application in order to ensure that water quality would not be degraded, nor hazards exist which threaten wildlife, fish, their food chain, or other components of the environment; (2) buffer zones will be included around troughs, tanks, perennial streams, and major ephemeral drainages; and (3) application of pelletized herbicides will not coincide with periods of major runoff events in order to minimize the possibility of relocation of herbicides by runoff water. For more information on guidelines for vegetation treatments, see to Appendix C-3 of the Draft.

29-23 See Draft page 4-13, paragraphs 4 and 5. The change in percent ground cover would be minimal since a maximum kill rate of 60 percent is expected and this would increase plant diversity.

29-24 Project and monitoring files in addition to Job Documentation Reports (JDRs) are kept on each project. Under present policy, BLM does post-treatment monitoring on these projects to check the effects of the chemical not only on the vegetation but on soils and wildlife as well. Any adjustments in rates of application, method of application, or timing will be based on these studies.

Mr. Larry Nunez
May 27, 1985
Page Five

29-24 (cont'd) make it appear that the herbicide is not working, we would like assurance that there will be complete inventory listings made of any and all applications of Tebuthuiron to prevent over-application.

29-25 Soil erosion has been identified as a problem in the resource area. Areas in the southern part of Otero county and eastern Sierra county have been listed as having active wind erosion. These areas are also identified for herbicide treatment which would cause the erosion to "increase slightly in the short-term" (pg 4-5). No mention is made of the impact of the potential topsoil loss from wind erosion in a dry year.

In keeping with Executive Order No. 84-20 which states "Whereas, it is desirable to reduce the use and reliance on chemical pesticides to control crop, range and forest pests because of the potential adverse impacts on the environment..." we cannot support any alternative that recommends the use of herbicides for brush control until our concerns and questions on the herbicide application are answered . Because of the historic grazing use on much of the public lands we find the no livestock alternative to be unrealistic. Except for the proposed use of herbicides, the balanced alternative is the best one. We concur with your preferred recommendation of the balanced alternative if the herbicide question is answered to our satisfaction.

If we can be of further assistance please do not hesitate to contact either Judy Bishop (827-7853) or Dave Johnson (827-7856) of our Resource Management and Development Division.

Sincerely,

Leo Griego

LEO GRIEGO
Secretary

29-25 The two primary target species for vegetation treatments are mesquite and creosotebush. Areas dominated by these invader species typically have less than 20 percent vegetation ground cover. Soil erosion is high as indicated by coppice dunes around mesquite shrubs and gravelly desert pavement soils in creosotebush dominated areas.

When herbicide is applied, the target shrub species begin to defoliate. The rate of defoliation depends on the type of herbicide applied and the success of the treatment. Average kill is approximately 50 percent. The reduction in ground cover because of the defoliating plants, theoretically, could slightly increase soil erosion. In the short-term, soil erosion rates between sprayed and unsprayed areas would not be significantly different for the following reasons:

1. During periods of high wind erosion (March through May), mesquite has not yet "leafed out"; therefore, there would not be a significant difference in ground cover percentage between treated and untreated areas.

2. In creosotebush dominated areas, basal ground cover is small. There is no significant difference in the amount of ground covered by the desert pavement; therefore, no significant difference in the amount of sheet erosion between treated and untreated areas.

As the shrubs die, more soil moisture becomes available for more species, many of which are more desirable forbs and grasses. Generally these other species provide better ground cover, when established. Studies on the Jornada Experimental Range have shown higher production of grasses, higher percentage ground cover, and less wind blown soil in areas where mesquite was chemically treated [Herbel, C. H.; Yarbrough, C. C.; and Gould, W. L., In 1972 Annual Report for the Jornada Experimental Range, USDA Agricultural Research Service in cooperation with NMSU, (Unpublished)]. The dunes also were reduced in height with topsoil being deposited in interdune areas. Studies on creosotebush treated areas on the Jornada showed no significant differences in sediment production (by water erosion) from chemically treated plots and plots rootplowed and reseeded than from untreated areas [Tromble, J. M., "Effects of Range Conservation Treatments on Runoff and Sediment Production", In 1984 Annual Report for Jornada Experimental Range, USDA Agricultural Research Service in cooperation with NMSU, (Unpublished)].

GOVERNOR
TONEY ANAYA
DIRECTOR AND SECRETARY
TO THE COMMISSION
HAROLD F. OLSON

State of New Mexico

DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87503

STATE GAME COMMISSION
JAMES H. KOCH, CHAIRMAN
SANTA FE
A. M. GUTIERREZ, JR., M. D.
CARLSBAD
CHRISTINE SHOREGOOD
GALLUP
THOMAS F. ARVAS, O. B.
ALBUQUERQUE
JAKE ALCON
ALBUQUERQUE

May 16, 1985

Dr. Daniel H. Lopez, Secretary
Department of Finance and Administration
State Capitol
Santa Fe, New Mexico 87503

Dear Dr. Lopez:

Thank you for the opportunity to comment on the Draft White Sands Resource Management Plan/Environmental Impact Statement. Members of my staff have reviewed the plan and find the sections dealing with forage allocations for wildlife and those pertaining to brush control to be the major areas of disagreement between the recommended plan of action (Balanced Alternative) and my agency. However, the Department also shares many of the concerns of the Natural Resources Department with respect to impacts of herbicide application on sensitive plant species, the potential for increased soil erosion resulting from vegetation manipulation, and the way in which the plan addresses social and economic issues.

29-26 Under the proposed alternative, livestock would be allocated 84.6% of the available forage (214,950 AUMs), while wildlife would be given only 15.4% of this total (see page 22 of the summary section). This apparent bias in favor of livestock, perhaps at the expense of wildlife, is simply unacceptable. Under multiple use, wildlife should be entitled to a greater, if not equal, share of the available forage and the cover that this vegetation provides.

29-27 The New Mexico Department of Game and Fish does not categorically oppose brush control, but massive control programs such as those proposed are never supported. The Department has sought to mitigate this by not opposing brush control projects of limited size. For example, as a rule

29-26 Please note on Draft page 3-27 that deer and pronghorn population level information is jointly developed between our agencies. The AUMs for both present and optimum populations are determined using a value of 5 deer and 7 pronghorn per AUM. Therefore, the 15.4 percent level is believed adequate for existing and future big game populations. The actual adequacy will be determined by the planned monitoring program. Not all acreage is in big game herd units which will account for a large part of the discrepancy between livestock and wildlife AUMs. Forage is available to other wildlife species through the total use permitted on the rangeland resource, and the remaining unused part of the vegetation is available for cover. For example, if 50 percent use on preferred forage is allowed during a year, nongame, big game, and livestock will be contributing to that use, and the remaining 50 percent will be available for cover. We are constantly looking for new information on which to evaluate our monitoring. If your agency has data indicating that the above approach is inadequate, we would appreciate having that data.

29-27 BLM will consult with the New Mexico Department of Game and Fish (NMDGF) on all brush control projects, individually, as per policy stated in the New Mexico State Office Supplement to BLM Manual 6711, Vegetation Control. It is BLM's intention with input from NMDGF, to provide through brush control, for a diverse and productive habitat arrangement that fulfills the needs of those species currently inhabiting the area or those that have been eliminated from the area by factors associated with brush invasion, as well as providing increased livestock forage.

Dr. Daniel H. Lopez -2- May 16, 1985

29-27 (cont'd) of thumb, treatments of a section (640 acres) or less of contiguous habitat are generally not opposed so long as buffer zones of equal size are well interspersed throughout the treatment area. The Department's opposition to large scale programs stems from philosophical considerations of how public lands are to be managed and from what we perceive as a general lack of biological data on both the short and long term effects of such treatments on the wildlife of this state.

29-28 Soil erosion, resulting from both wind and water, have been identified as a problem throughout much of the resource area. The proposed alternative, as well as some of the other alternatives, state that herbicide treatment would cause soil erosion to "increase slightly in the short-term". The document also states that from 1 to 3 years would be required to kill brush after the application of herbicides. No other reference is made, however, of how this additional loss of topsoil would affect revegetation success of treated areas, nor any data supporting the statement that the increase in erosion will only be slight, rather than significant.

29-29 The social and economic conditions section for each alternative considers only the impact on the livestock industry. The demography section on social and economic conditions in Chapter 3 states that agriculture, forestry, fisheries, and mining sectors account for only 6.4% of the total employment in the resource area (page 3-41). Table 3-21 (page 3-47) indicates that farm income is 3.9% of the total personal income earned in the resource area. The plan does not, however, address the impacts on the remaining 93% of the population in the social and economic conditions analysis in any of the alternatives.

Sincerely,

Harold F. Olson
Director

whb

cc: Susan Tixier (Office of Policy Analysis)

29-28 See response to Comment 29-25.

29-29 See response to Comment 29-19. The impacts to the livestock operators who utilize public land were analyzed due to the Rangeland Management issue. As a result of this issue, under each alternative, the economic impacts to the remaining sectors were analyzed using a regional economic analysis model. This model identifies for each alternative the income and employment changes for 88 disaggregated sectors within the Resource Area economy. Those sectors which experienced a small amount of change in income and employment were not discussed in the Social and Economic section in Chapter 4 of the Draft. Although these sectors were not discussed in the narrative, they did contribute to the overall changes in income and employment within the Resource Area economy by alternative. In addition to the Range livestock sector, the primary sectors affected were the Retail Trade, Eating and Drinking Places, New Construction, Maintenance and Repair Construction, Wholesale Trade, and the Food, Feed Grains, and Grass Seeds for the various alternatives. Please refer to Technical Report V for additional information on the sectoral analysis.

STATE OF NEW MEXICO

OFFICE OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

VILLA RIVERA, ROOM 101
228 EAST PALACE AVENUE
SANTA FE, NEW MEXICO 87503
(505) 827-6320

TONEY ANAYA
GOVERNOR

JILL Z. COOPER
CULTURAL AFFAIRS OFFICER

THOMAS W. MERLAN
DIRECTOR

May 27, 1985

MEMORANDUM

H-109

TO: Dan Lopez
Secretary, Department of Finance and Administration

FROM: Thomas W. Merlan
State Historic Preservation Officer

SUBJECT: White Sands Resource Area: Draft Management Plan/Environmental Impact Statement, Bureau of Land Management, Las Cruces District Office

Thank you for the opportunity to comment on the above document. The following comments pertain only to the cultural resource sections of the above Plan and draft EIS.

We have also enclosed a copy of a letter of May 21, 1984 from this office to the BLM. This letter was written as part of the consultation process required of BLM pursuant to federal regulation 36 CFR 800. It is also published on pages H-5 and H-6 of the DEIS. All of the recommendations in that letter still pertain.

We particularly draw your attention to those recommendations in the letter pertaining to the need for additional cultural resource inventory since so little of the White Sands Resource Area has been surveyed for cultural resources (only .02%, according to page 3-33 of the DEIS). The low level of existing cultural resource information is of concern because the purpose of the management plan is to allocate various land and resource uses over the next ten to twenty year period. Yet as noted on pages H-1 to H-4 of the DEIS, a number of areas have insufficient survey coverage at present to make assessments about the distribution of archaeological resources or to evaluate potential impacts. It is not clear why no additional inventories were completed as part of the planning process to remedy such data deficiencies.

29-30

In general, the present level of cultural resource coverage does not provide a sound basis for making long-term land use decisions, unless specific provision is made for additional archaeological survey to be conducted as part of Plan implementation. Conducting additional non-project-specific inventories should be an essential part of Plan implementation since most of the land uses outlined

29-31

29-30 BLM is mandated to preserve and protect cultural resource values by numerous laws and regulations, including the National Historic Preservation Act of 1966, 36 CFR 800, and the Archaeological Resources Protection Act of 1979.

Prior to any undertaking which might affect eligible or potentially eligible cultural resources, inventories are conducted to document the presence of cultural resources. Following an evaluation of significance and effect (in accordance with 36 CFR 800), efforts are made to design undertakings so that they will not affect significant cultural resources. Where this is not possible, appropriate data recovery programs are implemented to mitigate any adverse effects. This informaton will provide the data base necessary for management decisions.

Although funding for Class III inventories generally proceeds on an undertaking-specific basis, a commitment is being made to conduct a Resource Areawide Class II sampling inventory. Benefiting activities fund Class III intensive surveys.

29-31 See response to Comment 29-30.

29-31 (cont'd)

for the resource area are generally broad-ranging and non-site-specific. It will be impossible for BLM to control dispersed impacts to significant cultural resources without having better information regarding those resources which are present. Completion of such inventories is also a legal responsibility under Section 110 of the National Historic Preservation Act, as amended.

The remaining comments are divided into several parts:

1) Assessment of the Plan's adequacy in terms of compliance with BLM's legal responsibilities for managing cultural resources as outlined in the National Historic Preservation Act of 1966, as amended.

2) Assessment of the various alternatives in terms of their potential impacts on cultural resources.

3) Recommendations for strengthening the cultural resource components of the Plan in terms of cultural resource protection.

I. COMPLIANCE WITH NATIONAL HISTORIC PRESERVATION ACT RESPONSIBILITIES:

Federal responsibilities for cultural resources pursuant to the National Historic Preservation Act are outlined primarily in Sections 106 and 110 of the Act.

Section 106 responsibilities: Section 106 of the Act requires that the head of any federal agency having direct or indirect jurisdiction over a proposed federal or federally-assisted undertaking take into account the effect of that action on any district, site, building, or structure that is included in or eligible for inclusion in the National Register of Historic Places.

Page 2-25 of the Plan outlines pertinent cultural resource management guidance which is common to all alternatives. This guidance is generally consistent with federal responsibilities pursuant to Section 106. However, since the Plan may be utilized by individuals who may not be familiar with the legal or procedural basis for Section 106 compliance, we recommend strengthening this section by including a specific statement that cultural resources will be managed in accordance with the consultation procedures outlined in 36 CFR 800 and the statewide programmatic memorandum of agreement (PMOA) among the Bureau, Advisory Council on Historic Preservation, and the State Historic Preservation Office (NMSO-168).

29-32

It would also be useful to reference the BLM cultural resource manual and other pertinent federal and agency guidelines and standards, as appropriate. The latter might include the Archaeological Resources Protection Act of 1979 and regulations, the Secretary's Guidelines and Standards for Archaeology and Historic Preservation and the Advisory Council on Historic Preservation's Handbook for the Treatment of Archaeological Properties, among others.

29-32 See revised Draft page 2-25 (Final page 117).

86

Section 110 responsibilities: Section 110 of the Act sets out a number of specific responsibilities. In terms of the Plan, the most pertinent of these legal responsibilities are the following:

29-33

1: It is the responsibility of each federal agency to establish a program to locate, inventory and nominate all properties under the agency's ownership or control that appear to qualify for inclusion in the National Register.

2: Each federal agency is to exercise caution that such significant properties are not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.

We are pleased to see that the Plan includes a number of specific actions that BLM will take to protect several known significant sites, consistent with its Section 110 responsibilities. For example, as noted on page 2-25 of the Plan, all alternatives provide for specific cultural resource management plans to be prepared for the Rattlesnake Hill archaeological district, the Alamo Mountain petroglyphs area, the Lone Butte area, selected sites on the McGregor range, and the Butterfield and Jornada del Muerto trails. The prehistoric sites in particular are extremely important sites that require active management attention to insure that they are not vandalized or otherwise damaged by either natural or human agents. We also note that the Bureau maintains the Three Rivers Petroglyph site as a public interpretive area.

The Bureau is to be commended for its commitment to these activities. However, since the majority of protection being afforded to these sites in any of the alternatives is simply restriction of ORV traffic in the site vicinity, it is recommended that the Bureau take other, more active measures to insure that these sites do not deteriorate further. These could be done as part of the cultural resource management plan implementation process.

29-34

The Plan appears to be generally deficient regarding Section 110 compliance, in that it does not appear to establish an affirmative program to locate, inventory, and nominate all potentially eligible properties to the National Register of Historic Places. As noted in the document, no federal properties in the White Sands Resource Area are currently listed on the National Register of Historic Places, which suggests that this has been a low priority in the past. We recommend that the Plan be modified to establish such an inventory and nomination program.

As mentioned above, completion of additional inventories should also be a prime goal for the cultural resource program since to date, less than 1% of the resource area has been inventoried. A number of priorities for Section 110 inventories are outlined on pages H-1 through H-6 of the document. Such a program should include establishment of measurable goals for such comprehensive inventories and nominations. We would be pleased to meet with the Bureau on an annual basis to discuss priorities for inventories and, whenever possible, to coordinate State-sponsored inventories with those planned by the BLM.

While developing a comprehensive cultural resource inventory is a specific federal responsibility under Section 110 of the NHPA, it should again be emphasized that conducting such inventories is essential for BLM to make reasoned decisions regarding the allocation of public lands for various uses. Even dispersed impact activities such as ORV traffic and grazing have the potential to impact cultural resources. Unless additional inventories are completed, there is no way to gauge

87

29-33 A 10 percent Class II cultural resource inventory in the White Sands Resource Area will be initiated.

29-34 See response to Comment 29-30.

29-35 the effect of these dispersed actions on as-yet undocumented cultural resources, or to see whether other management strategies should be employed to prevent site deterioration. Since Section 110 also assigns affirmative responsibilities to federal agencies to exercise caution that sites do not deteriorate significantly, we also encourage BLM to establish an ongoing program of site inspection, and to take active steps to protect and stabilize those sites that are found to be deteriorating.

II. ASSESSMENT OF THE VARIOUS PROPOSED ALTERNATIVES IN TERMS OF CULTURAL RESOURCES

Overall, as noted in the Plan, the impacts that can be anticipated to cultural resources as a result of implementation of any of the alternatives include artifact damage from cattle trampling on sensitive archaeological sites, direct site damage caused by ORV traffic, and site deterioration caused by soil erosion. Transfer of sites from federal ownership as a result of land tenure adjustments and land swaps also removes significant protection from cultural resources; such land actions are required to consider cultural resource values and mitigation efforts as part of Section 106 compliance, however. Vandalism may also be a ongoing problem.

29-36 In general, those alternatives that help prevent soil erosion and limit ORV traffic are also those that would best help to preserve archaeological resources. In terms of rangeland improvements, it should be noted that the Plan/DEIS does not analyze the impact of herbicide use on cultural resources in any of the alternatives. Since the use of herbicides could conceivably affect datable carbon samples, the potential impacts of herbicide use should be addressed in the final Plan/EIS.

Overall, Alternative III (the protection-oriented alternative) would appear to be the preferred alternative if considered solely on the basis of cultural resource concerns. This alternative appears to provide greater cultural resource protection because of somewhat greater limitations on ORV use and improved soil erosion control. Designation of other special management areas and Areas of Critical Environmental Concern (ACEC) in this alternative would also have secondary benefits for cultural resources. However, the proposed land tenure adjustments of 154,000 acres would still affect a significant number of sites (estimated at approximately 484 on page 4-59 of the Plan/DEIS, or approximately three times as many sites as have presently been documented in the entire resource area).

Alternatives I (Balanced) and V (No livestock grazing) also afford some measures of cultural resource protection, primarily through control of soil erosion and ORV use. Alternatives II (Production) and IV (No action) appear to provide somewhat less protection to cultural resources, since erosion appears to be less controlled and ORV use is less restricted.

29-37 However, none of the alternatives provides an adequate assessment of potential impacts to cultural resources. Nor do they provide for measures to mitigate adverse effects which may be anticipated from adoption of any of the alternatives. None of the alternatives appears to provide for protection of sites through law enforcement under the Archaeological Resources Protection Act of 1979. Nor does any of the alternatives provide for additional inventories to identify presently-undocumented sites which may be affected by implementation of the various alternatives. The document appears to assume that there are certain baseline levels of site degradation associated with dispersed land uses that the Bureau has

29-35 Monitoring of cultural resources is an ongoing process. If any undue damage is found during the monitoring, ORV designations may be changed or other actions may be taken (43 CFR 8342.3).

29-36 Before implementation of any vegetation treatments, cultural resource clearances will be conducted and site-specific environmental assessments will be completed.

29-37 See response to Comment 29-33.

29-37 (cont'd) no legal obligation to attempt to ameliorate. As mentioned above, this is not consistent with federal responsibilities under NHPA.

The following is a somewhat more detailed analysis of cultural resource concerns for each of the five alternatives.

Alternative I (Balanced): Cultural resource concerns pertaining to this alternative are outlined on pages vi, ix, 2-4 to 2-5, and 4-24 to 4-25 of the DEIS/Plan. This alternative is beneficial to cultural resources in that it protects known significant sites by restricting ORV traffic in the following areas: Three Rivers Petroglyph Site and Picnic Area (limited to existing roads and trails), Rattlesnake Hill archeological district (closure of 640 acres), Alamo Mountain petroglyph area (closure of 200 acres to ORV and area designated for no surface occupancy), Lone Butte (ORV limited to existing trails and roads), Jarilla Mountains (120 acres closed to ORV), Butterfield and Jornada del Muerto trails (restriction of certain activities from well-preserved segments of the trail)(page vi).

As noted on page 2-5 of the Plan/DEIS, the great majority of lands would remain open to ORV use. As noted on page 2-5, this alternative would close only 2640 acres to ORV use, restrict an additional 83,005, but leave 1,668,529 acres open for such use. If this alternative is selected, it is critical that BLM implement additional inventory, ongoing site inspections and active protective measures such as stabilization to insure that significant resources are not being destroyed by such land uses.

29-38

As noted on page ix, the major impacts to cultural resources in this alternative would be from cattle trampling on artifacts, rangeland improvements, land tenure adjustments, and creating additional access. However, the proposals to limit ORV use, improving soil erosion conditions, and fencing should help protect some sites.

Regarding land tenure adjustments (page 4-25), it seems somewhat contradictory to propose transferring the Alamo Mountain petroglyphs out of federal ownership, given their known significance.

29-39

Despite the acknowledged impacts to cultural resources resulting from increased road construction and access into culturally-sensitive areas (page 4-25), the Plan/DEIS makes no provision for mitigating such impacts.

29-40

Alternative II (Production): Cultural resource concerns pertaining to this alternative are outlined on pages xii and 4-45 to 4-46.

This alternative is generally the most detrimental to cultural resources since it opens all public lands within the resource area to ORV use (page x) which leaves all archeological sites within the resource area, including those of known significance, open to varying levels of deterioration, depending on the nature of the individual resources and the character of the local soils. The Plan/DEIS (page 4-44) suggests that the rate of soil erosion should be less than at present, which if correct, would appear to benefit archaeological sites in erosion prone areas. It is not clear that soil erosion will actually decrease in this alternative, however, given its production orientation.

29-38 See responses to Comments 29-33 and 29-35.

29-39 Prior to any land disposal or exchange, resource values will be evaluated on a case-by-case basis. No critical resources will be allowed to enter the private sector.

29-40 Mitigation plans for those archaeological sites which cannot be avoided will be developed.

29-41 The Plan/DEIS (pages 4-44 to 4-45) outlines a number of adverse impacts to cultural resources which may be anticipated from implementation of this alternative (artifact damage caused by cattle trampling and range burning, vandalism). Again, the Plan/DEIS does not present any measures to mitigate such adverse effects.

Alternative III (Protection): Cultural resource concerns pertaining to this alternative are outlined on pages xiv, xvi and pages 4-58 to 4-59.

This alternative provides a somewhat greater degree of direct protection to cultural resources in that somewhat larger acreages are restricted to ORV traffic in several archaeologically-sensitive areas. In this alternative, a number of other proposals for special management of designated areas (as outlined on pages 2-8 to 2-9) should also provide secondary protection to cultural resources.

Even with increased restrictions on ORV use, this alternative still provides for 1,524,355 acres available for such uses, while only 229,910 acres are either restricted or closed to off-road traffic. However, ORV use would be restricted in the vicinity of several extremely important resources, which makes this alternative generally the preferred one for cultural resources of those included in the Plan.

29-42 Again, in consideration of the fact that many sites will be exposed to direct disturbance by factors such as vandalism and soil erosion, we encourage BLM to adopt an ongoing site inspection program as part of regular range management and related activities. If damage is noted at significant sites, steps should be taken to prevent further deterioration of these resources.

As mentioned previously, while seemingly the best from a cultural resources standpoint, this alternative, still fails to address all of the Bureau's legal responsibilities for cultural resources.

Alternative IV (No action): Cultural resource concerns pertaining to this alternative are outlined on pages xviii and page 4-66.

Overall, this alternative presents the same types of impacts to cultural resources as the production alternative, although somewhat different in magnitude. It is difficult to gauge the extent of impacts associated with this alternative. As noted on page 4-66 erosion, trampling, and vandalism appear to be the main anticipated impacts to cultural resources.

In general, we question the assessment that appears on page 4-48 that the major cause of damage to cultural resources is that of cattle trampling and displacing artifacts. While this is undoubtedly an impact, it would seem that the ongoing problems of site deterioration caused by soil erosion and vandalism are also significant causes of impacts to significant archeological sites. In view of the very limited cultural resource data available, relative ranking of such impacts would appear to be speculative at best.

As noted on page 2-10 of the Plan/DEIS, the major change in this alternative in terms of cultural resources concerns is the degree of regulation of ORV traffic. In this alternative, the vast majority of the resource area would simply remain as undesignated for ORV use, that is, neither open nor closed. There would be some limitations on ORV use in approximately 117,000 acres which would include some of the archeologically sensitive areas designated for ORV restriction in the protection

29-41 See response to Comment 29-33.

29-42 Monitoring of cultural resources will be an ongoing process. Protective steps will be taken as needed.

alternative, but leave others in unrestricted status. This alternative restricts ORV travel slightly more than in the balanced alternative, but less than in the protection alternative.

In this alternative, only the Three Rivers Petroglyph Site, the Rattlesnake Hill archaeological district and certain sites in the McGregor Range would receive special protection. This seems somewhat contradictory to the general cultural resource management recommendations described on pages 2-25 of the Plan/DEIS, which indicated that in all alternatives, cultural resource management plans would also be prepared for several other areas as well.

29-43

Alternative V (No livestock grazing): Cultural resource concerns pertaining to this alternative are outlined on pages xxi and 4-74.

The major benefit to cultural resources from this alternative is that soil erosion might be cut as much as 20% (page xix). This would presumably help limit the degree of natural deterioration that presently occurs on sites. As outlined on page 4-74 of the Plan/DEIS, the major benefit of this option to cultural resources is that there would be a decrease in the amount of cattle-caused damage to sites. As noted above, however, that is a difficult item to quantify. The reduced access into public lands in the resource area caused by reduced maintenance on existing roads (page 4-73) would presumably also help reduce access into archaeologically-sensitive areas and perhaps reduce the potential of site vandalism. However, this would also make the resource area more difficult to patrol by Bureau staff.

III. OVERALL RECOMMENDATIONS FOR STRENGTHENING THE PLAN:

29-44

1: It is recommended that the Plan provide for systematic non-project-related archaeological inventories to be conducted on an ongoing basis throughout the Plan implementation period. Such a program would be consistent with federal responsibilities required by Section 110 of the NHPA to locate and inventory all potentially National Register-eligible significant sites under agency ownership and control.

It is recommended that priorities and measurable goals be established for such inventory. A number of priorities for inventory have already been identified on pages H-1 through H-6 of the Plan, although such priorities may well change during the period of Plan implementation.

29-45

2: It is recommended that the Plan establish a program to nominate significant sites to the National Register, as part of Section 110 NHPA responsibilities, and that priorities and measurable goals be established for such nominations. Again, the Plan identified several logical nominations to pursue in the near future. We would be pleased to meet with Bureau staff periodically to assist in the completion of such nominations, and also to discuss priorities for Section 110 inventories.

29-46

3: It is recommended that the Plan establish a program for controlling vandalism and natural deterioration of potential National Register sites, including periodic inspection of known sites. It is recommended that an ongoing cultural resource inspection program be established in areas of high ORV use to see what impacts

29-43 The No Action Alternative is a continuation of current management direction, and cultural resource management plans would still be developed.

29-44 See response to Comment 29-30.

29-45 See response to Comment 29-30.

29-46 See response to Comments 29-33, 29-35, and 29-42.

29-46 (cont'd) such traffic is having on cultural resources. This program should also include analysis of other impacts, such as soil erosion and cattle grazing, to specific sites so that steps can be taken to lessen such impacts.

It is also recommended that the Plan establish a program to repair such damage to sites and to take steps to insure that such sites do not continue to deteriorate in the future. This is again in accordance with the Bureau's defined legal responsibilities under the NHPA.

29-47 4. It is recommended that the Plan provide for an ongoing program of monitoring Section 106 compliance to insure that all Bureau-authorized actions complete the legally-required review procedures.

29-48 5. It is recommended that the Plan expand its analysis of cultural resource impacts to include potential impacts of herbicide use.

We would be pleased to provide any additional information regarding the above. Thank you for the opportunity to comment on the Plan and DEIS.

29-47 BLM projects will continue to be in compliance with Section 106 procedures.

29-48 See response to Comment 29-36.

APPENDIX G - CORRESPONDENCE

STATE OF NEW MEXICO
OFFICE OF CULTURAL AFFAIRS
HISTORIC PRESERVATION DIVISION

VILLA RIVERA, ROOM 101
228 EAST PALACE AVENUE
SANTA FE, NEW MEXICO 87503
(505) 827-8320

TONEY ANAYA
GOVERNOR

JILL Z. COOPER
CULTURAL AFFAIRS OFFICER

THOMAS W. MERLAN
DIRECTOR

May 21, 1984

Mr. Daniel C. B. Rathbun
District Manager
Bureau of Land Management
Las Cruces District Office
Post Office Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Rathbun:

This is in response to your letter of May 4, 1984 which requested comment from this office regarding cultural resource concerns for the Bureau of Land Management's White Sands Resource Management Plan (RMP). These comments are provided as part of the Section 106 review process, as defined in 36 CFR 800.

Your letter included a large-scale regional map which indicated archeological inventories and known sites in the White Sands Resource Area, and a smaller-scale map identifying areas with high and low expected archeological site densities. The latter map also identified areas for which there are insufficient environmental or cultural resource data to make a determination of potential archeological sensitivity. Based on analysis of known data in the resource area, your letter provided eight specific management recommendations for cultural resources for the upcoming RMP.

The majority of BLM's management recommendations include measures for active protection of selected sites which are of known archaeological or historical importance. These recommendations include prohibiting or restricting off-road vehicles (ORV) in the vicinity of the Rattlesnake Hill archaeological district, Alamo Mountain petroglyph site, selected portions of the Jarilla Mountains and Lone Butte. Fencing is proposed for the entire Three Rivers petroglyph site and Mogollon village, and several sites on McGregor Range. National Register nomination and development restriction are proposed for the Alamo Mountain site, and portions of the Butterfield and Jornada del Muerto Trails. As you are probably aware, portions of the Alamo Mountain site (primarily the Alamo Mountain stage stop) were placed on the State Register of Cultural Properties in the late 1960s. Public interest has been expressed to this office regarding the need to have the site placed on the National Register as well.

APPENDIX G - CORRESPONDENCE

In my opinion, all of the recommendations included in your letter would provide much-needed protection to those selected resources, and should be implemented by the Bureau in its management of the White Sands Resource Area.

However, in view of the limited cultural resource data available for the resource area, I also recommend that BLM initiate a systematic regional survey for those portions of the resource area which have little or no archaeological data at present, or which have the greatest potential for as-yet-unidentified sites sustaining direct impacts from broad-ranging land uses such as ORV traffic, grazing, and site vandalism. In terms of better defining the regional data base, areas which may particularly benefit from additional sample inventory include Alkali Lakes, eastern Otero County, near the Guadalupe Mountains, and Caballo Mountain, among other areas identified on BLM's archaeological analysis map. As noted in your letter, survey of the Alkali Lakes area would be particularly significant, given the possibility of discovering Paleo-Indian remains in the playa areas.

In terms of longer-term planning and management concerns for the White Sands Resource Area, other actions which may contribute to the preservation and enhancement of cultural resources include further development of a computerized environmental and archaeological data base for the area, an active archaeological site monitoring program to help prevent unauthorized excavation and vandalism, and establishment of cooperative agreements with the State and other resource managing agencies to insure more complete exchange of cultural resource information for the region. For example, the White Sands Missile Range has recently completed a cultural resource overview and management plan which may provide useful comparison with adjacent segments of BLM's White Sands Resource Area. The survey information for the Black Range survey should also be available through the Laboratory of Anthropology, as are the survey data from the University of New Mexico field school in the Palomas Creek area.

Regarding the need for further consultation, I would appreciate further information about BLM's inventory plans for the area. I look forward to reviewing the draft planning document and environmental impact statement. Your maps are being returned under separate cover.

I appreciate your continuing cooperation.

Sincerely,

Thomas W. Merlan
State Historic Preservation Officer

TWM:NEW:jmg

APPENDIX H

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

DISTRICT OFFICE
P. O. BOX 1420
LAS CRUCES, NEW MEXICO 88004

IN REPLY REFER TO:
1600

MAY 1982

Mr. Tom Merlan
New Mexico, SHPO
Villa Rivera, Room 101
228 East Palace Avenue
Santa Fe, NM 87503

Dear Mr. Merlan:

We are enclosing a map prepared by our District Archaeologist for the White Sands RMP. It shows the anticipated archeological site density in the RMP area as well as areas where no inferences can be made due to a lack of data. I will now explain the various areas on a case by case basis.

1. This area has had very little survey; however, it is close to some major drainages and receives fairly high rainfall. From brief visits to the area it appears to have a fairly high potential for containing pithouse sites.

2. Various major drainages coming out of the Black Range. Existing data and the Black Range survey indicate that these drainages have high site densities.

3. This contains mainly the foothills of the Black Range. The only work of any significance in these areas is the Black Range study and the UNM field school of the last few seasons. These studies have not been published. There are only scattered BLM parcels in these areas, with the area between Hillsboro and Wineton on the Ladder Ranch being almost entirely private land. The only BLM action anticipated in this area would be the sale of scattered tracts which are surveyed prior to sale.

4. Herbert Yoe located a number of fair sized sites in this basin.

5. Surveys for seismograph lines have indicated a high site density in the area northeast of Nutt. They are mainly lithic quarries and lithic scatters.

6. Numerous seismograph lines in the creosote flats between the Rio Grande and the foothills of the Black Range have revealed very few isolated finds and almost no sites. There are almost no resources on the flats of interest to a prehistoric population and only a few of the largest drainages would have sufficient water to attract occupation.

7. The valley of the Rio Grande has a high site density according to BLM records. Almost all of it is private land.

8. Almost no survey has been conducted in the Caballo mountains, and no estimate of the archaeological potential can be made.

9. Several survey blocks for the Radium Springs survey fell within the area of the creosote flats east of the Caballos, no sites were located in this area. There are few resources present and little water, a low site density is anticipated.

10. This area along Jornada Draw has a possible high site density due to a major water course and the presence of mesquite, there has been little survey in this area.

11. Based on the Radium Springs survey and seismograph work the mesquite dune belt west of the San Andres mountains appears to have a high site density.

12. There is no survey data for this area to make a determination.

13. Based on limited BLM survey, this area appears to have a possibly high site density especially in mesquite dune areas along draws.

14. BLM range surveys and seismograph lines have revealed very few sites in the creosote belt along the slopes of the west side of the San Andres.

15. The canyons of the San Andres have a possible high site density; however, within a mile or two the White Sands Missile Range starts.

16. There is no survey data for this area.

17. Very little survey data exists for this area, away from drainages it will probably have a low site density.

18. The Three Rivers Drainage is known to have a high site density.

19. The area close to the Sacramento mountains possibly has a high density based on favorable environmental conditions, there is no survey data for this area.

20. Based on the BLM survey of Rattlesnake Hills, various surveys in the BLM files, and Beckes survey of McGregor Range, this area has a probable high site density.

21. There is no survey data for this area. The BLM land is small parcels that will probably be sold after being surveyed.

22. While there have been few surveys in this area it consists mainly of creosote flats with no potential water sources. Prehistorically if it was used, it was probably used for hunting of antelope and bison. Our wildlife biologist feels that there is little doubt that during the Archaic and earlier this was a large grassland containing bison. This area is close to being placed in the insufficient data category.

APPENDIX H (continued)

3

23. The Cornudas mountains are known to contain several large petroglyph sites and probably contain a number of base camps for Apache and Mogollon groups.

24. This area is similar to area 22 except for several ranges of low hills and a few sites have been located in this area from limited seismograph testing.

25. This area contains the foothills and base of the Guadelupes as well as a series of playa lakes that are likely to have Paleo Indian sites associated with them. A number of sites have been located in this area.

26. There has been no previous work conducted in this area.

The cultural resource recommendations for the planning effort are contained in special management areas in the upcoming RMP. A number of opportunities were identified in the initial planning process. The areas follows.

1. Designate the Rattlesnake Hill archaeological district as closed to ORV traffic. The area is T. 22 S., R. 8 E., Sec. 21. Originally this area was larger. However, the District Archaeologist determined that it was not as extensive as reported by Kim Way and that Way had surveyed half a section of state land in her 1977 survey.

2. Designate the Alamo Mountain petroglyph as limited to ORV travel on existing roads and trails. The area is T. 26 S., R. 13 E., Section 19, Sec. 20, Sec. 17, Sec. 18. Nominate the site to the National Register of Historic Places.

3. Conduct a stratified random sample of the Alkali Lakes area to determine if Paleo Indian occupation is present in the area. These lakes are the eastern most large playas in the country. This opportunity was rejected by management because the inventory phase of the RMP has passed.

4. Monument those portions of the Butterfield and Jornada del Muerto Trail on public land and limit major surface-disturbing activities to more than ¼ mile of each side of the center of well preserved ruts.

5. Designate a portion of the Jarilla Mountains as limited to ORV use to existing roads and trails because of the presence of a large Jornada Mogollon pueblo. The area is T. 21 S., R. 8 E., Sec. 15.

6. Designate the area around Lone Butte as limited to ORV use to existing roads and trails. The area is T. 19 S., R. 9 E., Sec. 6, and T. 19 S., R. 8 E., Sec. 1.

7. Fence several sites on McGregor Range to prevent surface disturbance. The sites are the Escondido site T. 19 S., R. 10 E., Sec. 29 & 30 (20 acres); 030-200 T. 19 S., R. 10 E., Sec. 35 (40 acres); 030-785 T. 19 S., R. 10 E., Sec. 35 (20 acres); 030-1833 T. 20 S., R. 10 E., Sec. 9 (20 acres).

8. Amend the Three Rivers Management Plan to recommend fencing the entire

29

APPENDIX H (continued)

960 acre Three Rivers Petroglyph site and Mogollon Village.

We are requesting your comments on our proposed opportunities and our site density map, and if you think further consultation is necessary to meet the requirements of 43 CFR 800.4. To further aid in your interpretation of our site map, we are enclosing the base map and mylar overlays for the area. The overlay shows the sites and previous surveys conducted in the area. Please return the base map and overlays to us in a week after you get them.

Sincerely youre,

/s/ Daniel C. B. Rathbun

Daniel C. B. Rathbun
District Manager

Enclosure

Museum of New Mexico: Memorandum

Date: May 22, 1985

To: Susan Tixier, DFA Clearinghouse

From: Curtis F. Schaafsma

Subject:

BLM White Sands Resource Area, Draft Resource Management Plan and EIS

As far as cultural resources are concerned, the subject draft plan and EIS is a peculiar mix of reasonably adequate background work on the part of the BLM archaeologists and myopic management recommendations. The greatest problems arise from not following the recommendations provided by the New Mexico State Historic Preservation Officer in his letter of May 21, 1984 which is included as part of Appendix H. This failure leads to an inadequate assessment of the known or highly probable presence of important cultural resources in the southern Tularosa Basin and in the country between the Rio Grande and the Black Range.

The BLM, like all Federal agencies, is bound to obey the National Historic Preservation Act of 1966, as amended (P.L. 96-515). Section 110 is especially important and among other things states:

> With the advice of the Secretary and in cooperation with the State Historic Preservation Officer for the State involved, each Federal agency shall establish a program to locate, inventory, and nominate to the Secretary all properties under the agency's ownership or control by the agency, that appear to qualify for inclusion on the National Register in accordance with the regulations promulgated under section 101(a)(2). Each Federal agency shall exercise caution to assure that any such property that might qualify for inclusion is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly [section 110(a)(2)].

In the context of the NHPA and the regulations mentioned above, the BLM is required to consult with the New Mexico SHPO. This they did by a letter of May 8, 1984 which is included in Appendix H. It is in this letter where the indications of the adequate background work by the BLM archaeologists are most apparent. However, there are deficiencies in that letter which were pointed out by the SHPO. These have to do with the need to incorporate the results of the Black Range and White Sands Missile Range surveys into their planning. While not yet published, the report on the Black Range Survey has been available since September, 1983. This report documents the existence of a heretofore poorly known series of Mimbres Pueblos and post Mimbres (El Paso Phase) pueblos in the valleys to the east of the Black Range. Some of these extremely important sites may be on BLM land and demand protection as well as careful consideration in any proposed land transfers. Such highly significant sites should absolutely NOT be allowed to enter the private sector, and should be carefully protected. At this time many of those on private land in this area are being bulldozed by unscrupulous potminers interested only in commercial gain. By failing to consider the recommendation of the New Mexico SHPO in his letter of May 21, 1984, they fail to consider in any manner the existence of these newly recognized sites. In the same manner, but not with such immediate potentially negative results, the failure to consider the

29-49

29-49 Prior to any land exchange, a cultural resource clearance will be conducted. No significant cultural resources will be allowed to enter the private sector unless a full data recovery program is completed.

96

implications of the White Sands Missile Range survey leads them to underestimate the extent and importance of the El Paso Phase pueblos and other sites in the desert of the southern Tularosa Basin.

29-50 The New Mexico SHPO also recommended that the BLM indicate what plans they have for conducting systematic regional surveys for those portions of the resource area which have little or no archaeological data at present, or which have the greatest potential for as-yet-unidentified sites sustaining direct impacts from broad-ranging land uses such as ORV traffic, grazing, and site vandalism. If sites are known measures can be taken to protect them. This is what the directive to locate, inventory and evaluate all cultural properties under the agency's ownership or control is all about in section 110 quoted above. The SHPO wanted to know what the BLM was planning to do to implement this directive and make specific plans to prevent these sites from being inadvertently demolished, substantially altered, or allowed to deteriorate significantly. Certainly the BLM knows in principle what its obligations are and repeatedly states that : "Any degradation of cultural resources would result in irreversible and irretrievable losses of information" (page 4-59). However, there is no reply that I can find to the SHPO's question of how they intend to inventory poorly known lands . They seem willing to let the present state of affairs persist, with poorly known areas remaining poorly known. Unfortunately this attitude sometimes allows them to act as if areas are poorly known, when in fact that is not the case. This is the situation in the above mentioned Black Range area.

There is also a distressing lack of demonstrated awareness of the existing archaeological literature for the White Sands Resource Area. They mention five archaeological references in their References Cited section. I found 64 archaeological bibliographic sources for the area in the ARMS computer system. While some of these are small reports there are some glaring omissions that they overlook. Notable are Beckett and Wiseman (1979); Human Systems (1973); Beckes et al. (1977); Schaafsma (1975; 1980); Stuart and Gunther (1981); Lehmer (1948) and Vera (1943). All of these have been published for years, and all of them are highly relevant to the preparation of this document. By overlooking them, they fail to have the proper regional perspective on what is important and what is not. Whoever prepared Map 3-7 must have been aware of these sources since it is a fairly good map. However, this knowledge does not become manifest in the text nor in the management recommendations.

The lack of a larger awareness leads the BLM to focus on the few areas that somebody in the administration happened to be aware of from personal involvement. For example, they expend a great deal of effort talking about their plans to fence and keep the ORVs out of a series of sites near the Jarilla Mountains near Orogrande. This was an area that Karen May surveyed for the BLM in 1977, and seems to be about the only area that BLM has systematically surveyed in the whole region. Their personal knowledge of this very tiny area led them to make recommendations about protecting this particular area in the May 8, 1984 letter to the SHPO. Obviously, the SHPO agreed. But what about the hundreds of other sites?. Similarly, the BLM proposes to keep ORVs out of the Three Rivers Petroglyph area. Again, this is an area the BLM has very nicely developed into a public visitation area. It is very hard for me to believe that ORVs are presently allowed into such an area; obviously it should be fenced. In other words, the myopic perspective of the BLM managers has led them to focus on a few places they happen to be familiar with and to disregard the others in terms of specific management plans.

29-50 See response to Comment 29-30.

Throughout the document there is a stated concern for cultural resources. I have noted some of the specific failings above. The threats to cultural resources derive from OHV traffic, livestock grazing, range and road improvements, land transfers, and vandalism/pothunting. Generally, they factor cultural resources into the various discussions of the environmental impacts from implementing the various alternatives. However, the threats merely vary in quality and amount from alternative to alternative. Clearly the Production Alternative would cause the most future deterioration and damage to cultural resources. None of the alternatives really address the on-going problems of site deterioration in the White Sands Resource Area. The few recommendations offered for Alternative I should be implemented, as was already stated in the SHPO letter of May 21. However, as the SHPO already has indicated, there is a tremendous need for additional inventory survey work in the area and they should should not be content to just deal with the few areas they are aware of.

I have included several attachments that should aid in evaluating the BLM document. These are:

A. Map comparing the known occurence of archaeological sites in the White Sands Resource area with the BLM map 3-7. The letters indicate the locations of sites in the ARMS computer system. These are overlain on Map 3-7. There is a good correspondence between known sites and BLM assessments of site densities in particular areas.

B. Table comparing cultures and ownership. The table shows that the BLM owns 157 or 7.84% of the known sites in the area. This really shows that BLM has a lot of work to do catching up with the inventories that have taken place in the area. Obviously, they own more than 7.84% of the real estate.

C. Table comparing cultures and topography. This is valuable in predicting the locations of sites in various topographic settings.

D. Table comparing cultures and ecozone. This is also valuable in predicting the locations of sites.

The BLM means well and has made a reasonable effort to deal with cultural resources in the White Sands Resource Area and factor them into the planning process. However, they have made some basic errors that can be corrected before this draft is accepted. Specifically, they must include the information from the Black Range Survey into this document. It may also be possible to include information from the University of New Mexico Field School in this same area. The 29-51 draft should be regarded as deficient until this area is brought up to date. They must show that they are aware of the work on the White Sands Missile Range in the Southern Tularosa Basin and the implications this survey has for sites in the rest of the Tularosa Basin. They also must show that they have considered and dealt with the pertinent literature for the region. The lack of consideration of these basic works leaves the report deficient and unacceptable. Finally, they cannot let the status quo on poorly known areas to persist. They must indicate willingness 29-52 to do what the Federal law tells them to do, inventory their lands.

29-51 See revised Draft page 3-36 (Final page 119).

29-52 See response to Comment 29-33.

REFERENCES CITED

Beckes, Michael R., David S. Dibble and Martha Doty Freeman
1977 A Cultural Resource Inventory and Assessment of McGregor Guided Missile Range, Otero County, New Mexico. Texas Archeological Survey Research Report No. 65/I. The University of Texas at Austin, Austin.

Beckett, Patrick H. and Regge N. Wiseman
1979 Jornada Mogollon Archaeology. New Mexico Historic Preservation Bureau. Santa Fe.

Human Systems Research
1973 Human Systems Research, Technical Manual

Lehmer, Donald J.
1948 The Jornada Branch of the Mogollon. University of Arizona Social Science Bulletin No. 17.

Lumbach, Earl W. and David T. Kirkpatrick
1983 The Black Range Survey. CRPD New Mexico State University, Report No. 566. Las Cruces.

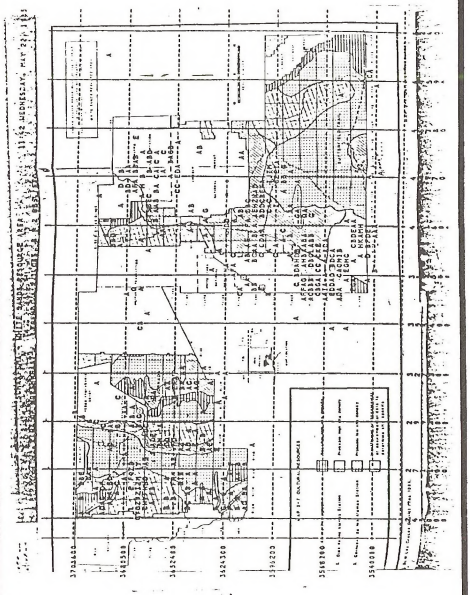
Mera, H.P.
1943 An Outline of Ceramic Developments in Southern and Southeastern New Mexico. Laboratory of Anthropology Technical Series , Bulletin No. 11. Santa Fe.

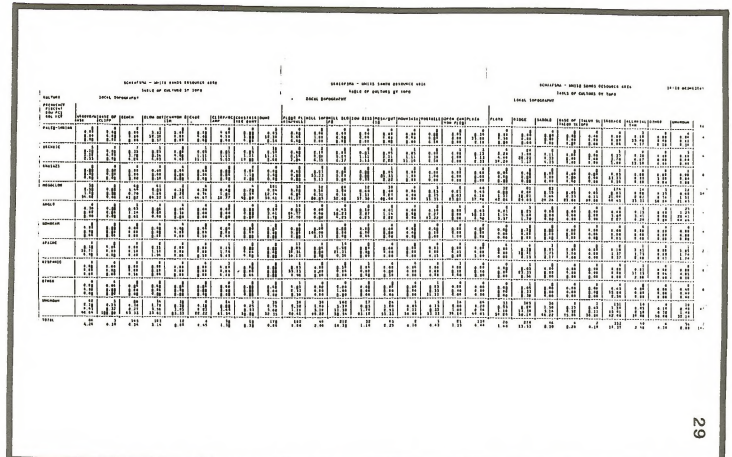
Schaafsma, Polly
1975 Rock Art in New Mexico. University of New Mexico Press, Albuquerque.

Schaafsma, Polly
1980 Indian Rock Art of the Southwest. School of American Research, Santa Fe.

Stuart, David E. and Rory P. Gauthier
1981 Prehistoric New Mexico: Background for Survey. New Mexico Historic Preservation Bureau, Santa Fe.

29





SCHAFSMA - WHITE SANDS RESOURCE AREA
TABLE OF CULTURE BY DUNE

CULTURE / DUNEY FEATURE # PCT L PCT	OWNER	LANDOWNER																														TOTA
	RELIGIOUS	CITY	MUSEUM	NEW MEXICO	STATE PARKS	COMMERCIAL	PRIVATE	INDIVIDUAL	SAN JUAN	ARCH. SITE	SANTA AN	STATE OF	N.M.	STATE	LANDS	DEPT.	DEFENSE	BLM	L.M.	WATER POI	SERVICE	FOREST S	PARK	NATIONAL	WATER SAM	U.S.	OTHER	UNKNOWN		
EP-INDIAN	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
MAIC	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
BAZI	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
DILDM	0 0.00 0.00	0 0.00 0.00	28 1.53 100.00	0 0.00 0.00	59 3.22 18.85	0 0.00 0.00	61 3.33 18.79	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	47 2.57 14.48	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	123 6.72 37.85	0 0.00 0.00	3.83 12.50	0 0.00 0.00	59 3.22 18.85	0 0.00 0.00	11 0.60 2.11	0 0.00 0.00	6 0.33 1.85	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	74 4.04 23.64	313	39.1
LO	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
OKAM	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
ONE	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
PANIC	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
ICE	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
MOUN	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0.0
TOTA	0 0.00 0.00	0 0.00 0.00	28 1.53 100.00	0 0.00 0.00	59 3.22 18.85	0 0.00 0.00	61 3.33 18.79	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	47 2.57 14.48	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	123 6.72 37.85	0 0.00 0.00	3.83 12.50	0 0.00 0.00	59 3.22 18.85	0 0.00 0.00	11 0.60 2.11	0 0.00 0.00	6 0.33 1.85	0 0.00 0.00	0 0.00 0.00	0 0.00 0.00	74 4.04 23.64	313	39.1

SCHAAFSMA - WHITE SANDS RESOURCE AREA

TABLE OF CULTURE BY ECOZONE

CULTURE ECOZONE ECOLOGICAL ZONE

10:39 WEDNESDAY, MAY 22, 1985

FREQUENCY PERCENT ROW PCT COL PCT	FOREST	WOODLAND	SCRUBLAND	GRASSLAND	DESERT SCRUB	OTHER	UNKNOWN	TOTAL
PALEO-INDIAN	6 0.40 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	2 0.10 25.00 0.36	6 0.30 75.00 0.65	0 0.00 0.00 0.00	0 0.00 0.00 0.00	8 0.40
ARCHAIC	11 0.55 12.22 8.03	18 0.90 20.00 5.36	0 0.00 0.00 0.00	16 0.80 17.78 2.90	45 2.25 50.00 4.88	0 0.00 0.00 0.00	0 0.00 0.00 0.00	90 4.49
ANASAZI	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.15 100.00 0.33	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.15
MOGOLLON	46 2.30 5.80 33.58	102 5.09 12.86 30.36	24 1.20 3.03 59.09	254 12.68 32.03 46.01	364 18.17 45.90 39.48	0 0.00 0.00 0.00	1 0.05 0.13 14.29	793 39.59
ANGLO	7 0.35 7.95 5.11	10 0.50 11.36 2.98	4 0.20 4.55 9.09	47 2.35 53.41 8.51	19 0.95 21.59 2.06	0 0.00 0.00 0.00	1 0.05 1.14 14.29	88 4.39
HOHOKAM	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 100.00 0.11	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05
APACHE	44 2.20 78.57 32.12	5 0.25 8.93 1.49	0 0.00 0.00 0.00	4 0.20 7.14 0.72	2 0.10 3.57 0.22	0 0.00 0.00 0.00	1 0.05 1.79 14.29	56 2.80
HISPANIC	0 0.00 0.00 0.00	0 0.00 0.00 0.00	1 0.05 33.33 2.27	0 0.00 0.00 0.00	2 0.10 66.67 0.22	0 0.00 0.00 0.00	0 0.00 0.00 0.00	3 0.15
OTHER	0 0.00 0.00 0.00	5 0.25 41.67 1.49	1 0.05 8.33 2.27	0 0.00 0.00 0.00	6 0.30 50.00 0.65	0 0.00 0.00 0.00	0 0.00 0.00 0.00	12 0.60
UNKNOWN	29 1.45 3.06 21.17	196 9.79 20.65 58.33	12 0.60 1.26 27.27	229 11.43 24.13 41.49	474 23.66 49.95 51.41	5 0.25 0.53 100.00	4 0.20 0.42 57.14	949 47.38
TOTAL	137 6.84	336 16.77	44 2.20	552 27.56	922 46.03	5 0.25	7 0.35	2003 100.00

NEW MEXICO NATURAL HISTORY INSTITUTE
[illegible]
St. John's College Campus
Santa Fe, New Mexico 87501

27 May 1985

Larry Nunez, Area Manager
White Sands Resource Area
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Nunez:

We comment on your Draft Resource Management Plan EIS.

Our most general criticism of the EIS is its emphasis on grazing. Economic analyses overemphasize the ranching community, which is a small fraction of the public who use WSRA lands. Even the little "information brochure" on the 1976 Caballo Planning Unit MFP quotes more good wildlife planning from that MFP than is to be found in all the 1985 EIS. Recreation, and the reasoning behind land tenure proposals, are also slighted in the EIS. Important statements of principals that have appeared in MFP's that are being replaced by the new plan--such as "Identify, enhance, and protect all riparian habitat"--cannot be found in the EIS, which gives only one small example (p. 2-4) of adequate attention to riparian values.

This Institute's focus of interest is protection of natural values, so special management areas will be this letter's main subject. First, though, we comment on the Draft Plan's other three "issues" plus off-road vehicles (which, we think, should be treated as an issue) and animal damage control.

I. Rangeland Management. We congratulate you on efforts to stop desertification and even to restore degraded rangeland. We can't in general evaluate whether proposed cuts in stocking levels meet the tremendous need, but a few samples (e.g. Allotment 9008) suggest that proposed remedies are inadequate to the need. No doubt Alternative III's proposed cuts would do the job better than would Alternative I's, and therefore we favor III. Sadly we note that previous grazing plans have proposed the same effort, with few actual results.

In some, probably most, ecological situations, we think that the culprit is not numbers of livestock but year-long grazing. The same number of cattle grazing half the acreage in alternate years might do more good than a 25% reduction in continuous grazing. Admittedly this is not usually possible with present high stocking rates: half the land couldn't produce enough forage for a given herd; more sophisticated rotations are needed. Of course this isn't news to you; we're merely saying that reductions such as "22%" or "25-50%" are too simply stated, and there should be more emphasis on grazing systems than the mere acknowledgement (p. 2-18) that they exist. The document has much emphasis on business-as-usual: range improvements and brush control "will allow increased stocking in the long run." With inadequate attention to the needs of plants, that's false.

30-1

102

30-1 Under the Proposed Plan (Final page 4), livestock grazing systems will be developed in cooperation with the livestock operators on Category I allotments. The grazing systems implemented will be based on the factors described on Draft page 2-18. Furthermore, the physiological needs of plants will be considered as well as the season of use.

WSRA. p. 2

30-2

II. Off-road vehicles. To allow vehicles to roam freely on 90% of public lands is to move in the opposite direction from that praised above; it is to promote desertification. You are ignoring enlightened examples of the State Game Commission, county commissions such as Chaves, and some Bureau plans such as Ladron and Stallion MFP's, which close lands except for specific trails and areas. ORV use is a "legitimate use of public land" (p. 2-26) only so long as you so state; the public has no inherent right to degrade the land in that or any other way. On the other hand you do have the duty to protect the land from degradation.

We have little objection to the proposed sacrifice areas for intensive ORV use--that seems to be a political necessity--but we strongly recommend closure of all other areas except to ranchers on business, to hunters picking up game already killed, and to anyone on designated trails, for protection of wildlife, livestock, range improvements, soils, and vegetation.

30-3

III. Land tenure adjustment. Discussion in the EIS seems deficient; we find no argument to support the acreage figures of the alternatives. Why, for instance, is getting rid of 45,000 acres "balanced," and getting rid of 58,000 acres more "productive"?

30-4

In general we think that scattered, difficult to manage tracts should, indeed, be disposed of. But the final EIS should include a clear statement like that of the 1982 Southern Rio Grande Planning Area MFP: "Before any tracts are offered for sale, first consideration for disposal will be given to any public purpose values or as a base for exchange to acquire other lands for Bureau programs."

For instance the six tracts in Doe Canyon (#158, 160-163, p. A-11, mapped as 5 tracts in Visual F) are parts of ranches that extend into the Brokeoff Mountains, where state or private lands adjacent to other Bureau-managed land should be exchanged for the isolated tracts. The seventh (proposed piece of land in Doe Canyon should definitely not be disposed of (unless by transfer to the Forest Service); it is a highly erodable escarpment adjacent on two sides to national forest land (proposed by the administration to become Bureau land); to dispose of it would create the only break in federal ownership of the Guadalupe Escarpment. Similarly the Black Range foothills areas north and south of Hillsboro, declared to be of high scenic and recreational value in the 1976 Caballo MFP; see Black Range Special Management Areas below in this letter.

30-5

Important proposals for land acquisitions that have appeared in earlier Bureau documents should be re-instated in the Final EIS. An instance is Caballo MFP Management Decision 17c, calling for acquisition of canyon-bottom lands in T12S R8W Secs. 10-11, 13-15.

30-6

Exchanges should especially target state inholdings in otherwise Bureau-managed areas, and most especially inholdings in areas important for water, recreation, and special protection. State lands in the Brokeoff, Cornudas, Jarilla, and Caballo Mountains and north of Nutt are likely prospects for blocking up Bureau holdings. We also favor

30-2 Bureau policy [BLM Manual 8342.06(3)] requires "open" ORV designation for public land where there are no compelling resource protection needs, user conflicts, or public safety issues to warrant limiting cross-country travel.

30-3 "Production" refers to increased livestock production and increased number of acres of land disposed of. See Summary page ix, Alternative II -- Production.

30-4 As per the statement for Land Tenure Adjustment for each alternative (Draft pages 2-5, 2-6, 2-9, and 2-10), lands suitable for disposal would be considered for such public purpose values as community expansion and private sale. All forms of disposal would be considered, including exchanges. An Environmental Assessment (EA) would be made for each disposal action, on a site-by-site basis. All resource values would be considered during the EA process.

30-5 BLM resource specialists and managers determined which previous management decisions were to be brought forward in this document, based on current and future needs.

30-6 A program to consolidate both the State's and BLM's landholdings is currently being worked on and will be further developed over the next few years.

WSRMA, p. 3

30-6 (con) Consolidation from the state's point of view; allowing the state to trade its many scattered sections for Bureau land, to the gain of both.

30-7 IV. Access. Problems of public access are serious in the Resource Area. Ranchers are allowed to post false "Private" signs, maps are inadequate, and in some instances the Bureau and the public really do lack legal access. Obtaining access, either by forced agreement with grazing lessees or by construction of bypass ways, should receive much higher priority than is indicated in the EIS.

30-8 V. Animal Damage Control. Fish and Wildlife Service trappers/hunters operate on federal land only by invitation of the managing agency. In some instances they have operated on the same ranches for decades. Coyote populations remain about steady in such areas, probably not much different from what they would be in the absence of expensive, taxpayer-financed "control," since bigger litters compensate for unnaturally high mortality. Traps and other killing devices are a hazard to people, to domestic animals, and to non-target wildlife. We propose that the Bureau address this issue in management planning and end the ADC program except where an excess of benefits over costs can be clearly shown. The EIS's mention (p. 2-23) of animal control planning sounds very much like business as usual: the Bureau, in effect, abdicates its responsibilities under the Animal Damage Control Act in an annual, District-wide, blanket "go get 'em" permit.

VI. Special Management Areas. This aspect of the EIS is the most disappointing to us. Although the proposed 40-acre study plots are a bright spot, especially in the version of Alternative 3, the percentage of the RA's 1.8 million acres designated for protection is miniscule, rather than the 5 or 10% that we think the land and the public deserve. The following suggestions address only one kind of special management, preservation of natural processes, and only from our inadequate basis of knowledge. It seems to us that the Resource Area has failed to explore or at least has failed to admit that it knows of many natural values additional to those mentioned in the EIS. Unfortunately we --a small group of biologists--do not have the resources to carry out the needed survey. So the following suggestions are much less complete and are many fewer than they should be. All involve exclusion of ORV's, and at least the research natural area proposals involve exclusion of livestock--which we realize is a difficult process.

30-9 1. Nutt Grassland Research Natural Area. Thousands of acres of native grasses, mainly black grama, survive in relatively good condition in the Nutt-Lake Valley area. T19S R5-6W contains fine examples. An RNA of at least two sections should be located here.

30-10 2. Lake Valley Ocotillo Outstanding Natural Area. This 99B-acre area was to be designated a "Natural Ecological Study Area," whatever that means, by Management Decision 76 of the 1976 Caballo MFP. That should happen. The area has a good, easily accessible sample of Chihuahuan Desert succulents near their northern limits.

30-11 3. Black Range Special Management Areas. The Caballo MFP decision (#79) was to manage 7191 acres in T12S R7-8W and T17S R7-8W for their scenic and recreation values, and presumably under Decision

30-7 We agree that access is a high priority. This is reflected by the fact that it is one of the four issues considered in this document. The conception that BLM allows ranchers to post private signs on public land is in error. Such violations are dealt with by removal of signs or other measures provided by law. More intensive road maps are being developed as additional inventories are made and will be made available for public use.

30-8 The Fish and Wildlife Service is authorized to conduct animal damage control (ADC) activities on public land only with concurrence and approval of the BLM. The ADC plan is reviewed and revised annually by both agencies, according to the interagency guidelines developed by the Fish and Wildlife Service, Forest Service, BLM, New Mexico Department of Game and Fish, and New Mexico Department of Agriculture, to reflect new data, current policies, and changing situations. The Fish and Wildlife Service and BLM have jointly agreed to limit ADC activities on much of the public land to protect endangered species, public safety, research natural areas, and for other reasons. Such areas are delineated on the District ADC plan map which is maintained at the appropriate BLM District Office.

30-9 Because of the vast areas of black grama, the BLM cannot justify the need to designate a Research Natural Area in the Nutt area. Opportunities for black grama research are available on the NMSU College Ranch, Jornada Experimental Range, and the Fort Stanton Experimental Range.

30-10 Designation of a Lake Valley Ocotillo Outstanding Natural Area was not identified as a concern during the issue identification step of the planning process (Draft pages 1-3, 1-4, 5-1, and 5-5) for the White Sands RMP/EIS and therefore, no proposal was carried forward into the document.

Under the Proposed Plan (Final page 5), 42 40-acre study plot exclosures will be established, and this area will be considered when the plot locations are determined.

The 1976 Caballo MFP was superseded by the Southern Rio Grande MFP in 1981. Decisions from the Southern Rio Grande MFP have been carried forward in the White Sands RMP where applicable (Draft page 2-12). Existing ecological plots in the White Sands Resource Area are the Eagle (Cafe), Cuchillo, Nordstrom, Lee, Trujillo, and Oanley plots. In addition, there are four study sites located on McGregor Range.

30-11 Designation of Black Range Special Management Areas was not identified as a concern during the issue identification step of the planning process (Draft pages 1-3, 1-4, 5-1, and 5-5) for the White Sands RMP/EIS and therefore, no proposal was carried forward into the document.

The 1976 Caballo MFP was superseded by the Southern Rio Grande MFP in 1981. Decisions from the Southern Rio Grande MFP have been carried forward in the White Sands RMP where applicable (Draft page 2-12).

Prior to any land disposal or exchange, resource values will be evaluated on a case-by-case basis. No critical resources will be allowed to enter the private sector.

WSRA, p. 4

30-11 (con.) 61 also for their importance to wildlife. We have not had opportunity to visit these "scenic, mountains lands containing interesting rock structures and a variety of vegetative types. They are believed to be valuable winter habitat for deer and other wildlife..." (from the MFP). We do not understand your present proposal, unaccompanied by any indication that the earlier survey was wrong, which would dispose of these lands and leave the federal government controlling only half of Montosa Mountain.

30-12 5. Cuchillo Desert Research Natural Area. No large area of Larrea-Flourensia shrubland on a bajada has been designated for long-term study. An RNA of several thousand acres can be chosen in T12-13S R5W such that it can serve as a control for experimental areas outside the natural area. When restoration projects are undertaken. For most of us creosote bush does not make attractive vegetation, but it is an important type of which samples should be protected from grazing.

30-13 5. Cuchillo Mountains (=Sierra Cuchillo of current USGS maps). Pro forma we mention support for the EIS proposal to exclude ORV's from 29,400 acres of the Cuchillo, Cornudas, and Brokeoff Mountains. But in fact since we argue above that vehicles should be restricted to designated trails on nearly all of the Resource Area, this is for us an unnecessary proposal. The Cornudas and Brokeoffs are mentioned again below, but we have no proposal other than ORV exclusion for the Cuchillos, although they are described as "relatively uninfruded, remote, and scenic" in the Caballo MFP and may be worthy of more protective management. Legal access to the Cuchillos should be obtained if not already done.

30-14 6. Caballo Mountains. Protection of caves should be included under Special Management Areas in the Final EIS. In our opinion, the Caballos, even more than most of the Resource Area, should be protected from ORV's except on designated trails.

30-15 7. Jornada del Muerto WSA. Just in case the Congress does not designate this area a wilderness, we recommend that it be designated as Jornada Walpais Outstanding Natural Area, for much the same reasons given in 1970's Caballo and Stallion MFP's and in the current Bureau wilderness study documents.

30-16 8. Jornada del Muerto. Although not clearly a special management area, since the principle should apply on all Bureau lands, the Jornada should be regarded as primarily a wildlife area--mainly as pronghorn habitat--rather than a livestock area. Range improvement decisions, especially fencing, should be based primarily on their effects on pronghorn populations. Hunters and wildlife-watchers are a much larger segment of the land's owners than are the few ranchers here. This is not to deny that range improvements may favor antelope, nor to claim that wildlife and domestic grazing are incompatible. It is merely to emphasize that the Bureau, long a facilitator for the ranch industry, should look mainly to the broader interests of its bosses, the general public.

9. Lake Holloman. We favor the EIS proposal (p. 2-8).

30-12 The existing Cuchillo Ecological Plot is located in T. 12 S., R. 5 W., Section 10, SE1/4, and Sections 11 and 14, All. An additional 6,380 acres of the same vegetation type are being protected in T. 12 S., R. 4-5 W.

30-13 Under the Proposed Plan, ORV use will be limited to existing roads and trails in the Cuchillo Mountains (6,160 acres). During the preparation of this document, and since then, this area has been examined for its access needs. We feel that enough access already exists to make further easement acquisition or road building unnecessary.

30-14 Protection of caves was not identified as a concern during the issue identification step of the planning process (Draft pages 1-3, 1-4, 5-1, and 5-5) for the White Sands RMP/EIS and therefore, no proposals were carried forward into the document. The caves in the Caballo Mountains are limited in size and are fairly inaccessible to the average recreationist. This BLM Office is currently working with the Mesilla Valley Grotto of the National Speleological Society to provide additional protection for caves in the Caballo Mountains.

ORV use in the Caballo Mountains will continue to be monitored, particularly during the deer hunting seasons (Draft page 2-24). An alternative limiting ORV use to existing roads and trails in the Caballo Mountains was considered, but was eliminated from detailed analysis for the reasons stated on Draft page 2-26.

30-15 The White Sands RMP/EIS covered only the southern tip of the Jornada del Muerto WSA in Sierra County. Designation of this area as an Outstanding Natural Area was not identified as a concern during the issue identification step of this planning process (Draft pages 1-3, 1-4, 5-1, and 5-5) and therefore no proposal was made in the document. The major portion of this WSA is located in Socorro County and is administered by the BLM Office in Socorro.

30-16 At present, 14 allotments within the Jornada del Muerto are included in the Jornada del Muerto Habitat Management Plan (HMP). The primary species of concern for this HMP is pronghorn antelope. Management decisions issued in this area are multiple use decisions. Rangeland improvements, especially fences, are subject to BLM standards that allow for pronghorn well being and compatibility with wildlife in general.

10. Study plots. We favor the EIS proposal in the form given on p. 2-8. Some plots should be combined with our Research Natural Area proposals or with previously established "ecology plots," such as the 40-acre Cain plot in T13S R2W Sec. 35.

11. Sacramento Escarpment ACEC. We favor the EIS proposal (p. 2-8).

30-17 12. Otero Mesa. The four cooperative-agreement research sites established in 1978 (and most fully documented in L. H. Stewart's 1982 master's thesis at NMSU) should be treated as special management areas. Comments above on the Jornada del Muerto antelope herd apply also to the Otero Mesa herd.

13. Cornudas Mountains (see also 14 and 15). The 1974 MFP approved designation of a 13000-acre primitive area. However, this roadless area slipped out of the Bureau's wilderness review following negative comments in the March and November 1980 review documents, which environmentalists were not then in position to rebut. Since then a number of biologists and others have studied the area and have found much that is worthy of protection, and much more truth in the Bureau's 1974 than 1980 comments. For both natural values and for recreation the most important of the three wilderness inventory units is Wind Mountain (#3-135). Here is perhaps not the appropriate place in which to propose Wind Mountain Wilderness, though we think that that is the right management category. For now, therefore, we propose Wind Mountain Outstanding Natural Area, of about 10,000 acres including the 7720 acres inventoried plus 1000 acres in adjacent state sections plus BLM sections 29-31 insofar as they lie east of the road southwest from Wind Mountain Well. (The way southeast from Wind Mountain Well should be closed.) (It is not necessary that state sections be surrounded by federal management units for the Commissioner of Public Lands to consider trades; in fact, he seems enthusiastic about blocking-up ownerships in instances like this.) We propose a primitive trailhead camping area in Section 27, below the windmill there. (Unrelated to the foregoing proposal, cattle management should be improved in Section 27, where concentration of cattle near the well is causing damage in an otherwise beautiful and recreationally important area. Maybe the 35% decrease in stocking proposed under Alternative 3 for Allotment 9030 is meant to effect the needed change, but it's not enough.)

30-18

30-19 14. Alamo Mountain Special Management Area (Cornudas Mountains, Part II). Not merely the petroglyph site (EIS p. 2-4, 2-9) but the whole roadless inventory unit 3-137 should be designated for protective management, mainly no off-trail travel by vehicle. Merely refraining from water developments gives adequate protection from livestock. A rain catchment on the broad summit, inaccessible to cattle, would greatly enhance wildlife habitat. Historical and archeological remains on the west side should be better protected, and public access routes should be clarified.

15. Flat Top (Cornudas Mountains, Part III). For this roadless inventory unit we merely endorse the EIS proposal to ban ORV's from the Cornudas Mountains. The northwest slope of Flat Top can be

30-17 See response to Comment 27-3.

30-18 Under the Proposed Plan, ORV use will be limited to existing roads and trails on 15,490 acres of the Cornudas Mountains. In addition, 23,236 acres around Wind and Chess Draws in the Cornudas Mountains will be limited to existing roads and trails for ORV use. Proposals for a Wind Mountain Outstanding Natural Area and a primitive trailhead camping area are not proposed. Implementation actions necessary to achieve such management are not feasible in view of the fact that there are higher priorities for management of existing recreation management facilities, and expressed demand for that type facility at that location is extremely low.

30-19 Under the Proposed Plan, the Alamo Mountain petroglyphs area (200 acres) will be designated No Surface Occupancy and closed to ORV use. In addition, 23,236 acres immediately southeast of the Alamo Mountain petroglyphs (a portion of the Cornudas Mountains) will be limited to existing roads and trails for ORV use and 506 acres immediately west and southwest of the petroglyphs (a portion of the Butterfield Trail) will be protected from major surface disturbance activities.

WSRA, p. 6

climbed by them.

30-20 16. Boardwell Natural Area or equivalent. The 1974 MFP proposed a 49,000-acre Outstanding Natural Area to protect "unique ecological communities of yucca, ocotillo, various cacti, desert browse species, and a variety of range grasses including tobosa and black grama" in T24-25S, R16-18E. During a necessarily brief visit I was unable to establish a justification for this ambitious proposal, nor to define defensible alternatives. Undoubtedly your planners know more about the area than we do. We here merely affirm our support of the concept that somewhere in this eastern part of Salt Basin there should be one or more research natural areas that, like areas on Otero Mesa and our proposals for Sierra County, will preserve the several vegetation types in plot(s) of at least 640 acres, with livestock excluded.

30-21 17. Brokeoff Mountains. Plans should be sketched out on the possibility that the Brokeoffs will not be designated as wilderness. So protect a variety of natural features, mostly botanical. Lower Panther Canyon (with several unusual plants, including Yucca grisea) and uplands southeast of there (with Sophora gypsophila) should be among the several areas considered. Overgrazing makes selection of a truly natural area impossible, but makes the creation of one or more livestock-free areas all the more important. Such areas should be called research natural areas in spite of unnaturalness. Our most ambitious version of this proposal is a long RNA (with breaks where necessary) near the Texas line that samples vegetation from the woodland on Cutoff Ridge westward to Lepidospartum stands near the Alkali Lakes, a distance of almost four miles covering almost 3000 feet in elevational spread. We recommend such a concept, though we have not yet worked out the feasibility.

30-22 18. Devil's Den. Roadless Area 3-145 should be designated an Outstanding Natural Area. Livestock should be excluded to enhance vegetational and scenic values. We understand that WSRA has jurisdiction over grazing in this part of Eddy County even though it is not responsible for special management there.

With best regards.

Rogers Peterson

Rogers O. Peterson
Secretary

30-20 The 1974 Mesa MFP was incorporated into the White Sands RMP/EIS where applicable (Draft page 2-12). Under the Proposed Plan (Final page 5), 42 40-acre study plot exclosures will be established, and this area will be considered when the plot locations are determined.

Also see response to Comment 30-10 for a list of existing ecological plots and study sites.

30-21 Under the Proposed Plan (Final page 6), ORV use will be limited to existing roads and trails on 7,779 acres of the Brokeoff Mountains, even if the area is not designated wilderness.

30-22 The White Sands RMP/EIS covers livestock grazing (but not special management) on this 320-acre parcel in the Devil's Den Canyon area in Eddy County. No concerns for exclusion of livestock in this area were identified during the issue identification step of this RMP/EIS (Draft pages 1-3, 1-4, 5-1, and 5-5) and no new livestock management proposals were made for this parcel because of its small size and isolation from other public land. Special management proposals for this area are handled by BLM's Roswell District.

DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT CORPS OF ENGINEERS
P O BOX 1580
ALBUQUERQUE, NEW MEXICO 87103-1580

REPLY TO ATTENTION OF:

May 23, 1985

Engineering and Planning Division
Planning Branch

Mr. Larry Bunes, Area Manager
White Sands Resource Area
1800 Marquess Street
PO Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Bunes:

The Bureau of Land Management's Draft White Sands Resource Management Plan/Environmental Impact Statement has been reviewed in relation to the Albuquerque District's responsibilities for flood control and administration of Section 404 of the Clean Water Act.

Those alternatives that emphasize watershed management would contribute toward the reduction of flood hazards, stabilization of stream channels, improved water quality, and increased longevity and effectiveness of flood control structures. The preferred alternative appears to make such contributions while simultaneously providing a combination of harmonious but diverse resource uses and considerations.

The Albuquerque District is currently developing alternatives to provide increased flood protection to the communities of Truth or Consequences and Williamsburg, New Mexico, from flood flows originating on the Cuchillo Negro Creek watershed. Intensified and long-term watershed management could make positive contributions toward reducing runoff and sedimentation. Flooding at the City of Alamogordo is being studied and watershed treatment measures could also make a positive contribution toward reducing runoff and sedimentation.

If the alternative chosen involves the discharge of dredged or fill material into waters of the United States a Department of the Army Permit would be required. For discharges occurring above the headwaters, a nationwide permit is available at 33 CFR 330.5(a)(26). This would include projects such as mineral mining operations (including sand and gravel), construction of road crossings, structural watershed treatments such as gully plugs, rock check dams and spreader dikes, pipelines, stock tanks and

catchments. A summary of the provisions of this nationwide permit and a brochure describing the Corps' regulatory program are enclosed for your information. Specific notification requirements are given for work causing the loss or substantial adverse modification of one- to ten acres of waters of the United States.

If a project cannot meet the conditions of the certain waters' nationwide permit or if the proposed work occurs in a water below the headwaters, another nationwide permit may apply or an individual permit may be needed. Summaries of nationwide permits for minor road crossings, work involving less that ten cubic yards of dredged or fill material, and bank stabilization activities are also enclosed. The offices responsible for the project must insure compliance with all conditions of the permit. Additional information regarding the Corps' regulatory program, including maps showing headwater locations, may be obtained from Ms. Jean Manger or Mr. Andrew Rosenau at telephone (505) 766-2776.

The opportunity to comment is appreciated.

Sincerely,

Jesse H. Coombes, P.E.
Chief, Engineering and Planning Division

5 Enclosures
1. Regulatory Prog
2. Nationwide Permit Summary (4 cys)

Copies Furnished:

SWDPL-R

SIERRA CLUB

EL PASO REGIONAL GROUP
444 Executive Center Blvd., St. 215
El Paso, Texas 79902
May 29, 1985

Larry Nunez, Area Manager
White Sands Resource Area
P. O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Nunez:

We have the following comments concerning the White Sands Resource Area Draft Resource Management Plan Environmental Impact Statement.

32-1

The opening of the entire resource area, except for a few special management areas, to off-road travel has the potential of creating irreparable damage to the public lands. We believe that the evidence is clear that off-road vehicle travel in the desert does extensive damage to the soils, vegetation, and wildlife. Several other resources are negatively affected as well. This fragile land cannot withstand this abuse.

The Bureau of Land Management is mandated to protect the resources on the public lands that it administers. Allowing unlimited off-road use of the public lands is a shirking of this responsibility.

The Draft states on page 2-26, "ORV use and camping are legitimate uses of the public land." We have no argument with this statement. We do not, however, agree that ORV use should be unlimited. The destructive nature of off-road travel should be sufficient reason to control ORV use of the public lands.

The Draft also states on page 2-26, "ORV use and unrestricted camping does not appear to be causing extensive resource damage or creating conflicts with other users of the public land throughout the Resource Area." Is it the policy of the BLM to wait until "extensive resource damage" has been done before attempting to protect the land? Now is when protection should be implemented, not when it is too late.

We believe that specific areas should be designated for off-road use by ORVs and that travel in all other general use areas be restricted to existing roads. We request that the final RMP reflect such a change in the proposed alternative.

Sincerely,

EL PASO REGIONAL GROUP
OF THE SIERRA CLUB

Thomas D. Brasfield
Conservation Chairperson

. . . To explore, enjoy, and protect the Nation's scenic resources. . .

32-1 See responses to Comments 27-2, 27-9, and 27-14.

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Field Supervisor
Ecological Services, USFWS
Post Office Box 4487
Albuquerque, New Mexico 87196

June 12, 1985

Memorandum

To: Area Manager, Bureau of Land Management,
White Sands Resource Area, Las Cruces, New Mexico

From: Field Supervisor, FWS, Ecological Services,
Albuquerque, New Mexico

Subject: Draft Resource Management Plan/Environmental Impact
Statement for the White Sands Resource Area (BLM)
EC 85/22

Due to limitations in time and manpower, we are unable to offer any comments on the subject document at this time. However, we would like to receive a copy of the final document when it is available.

John C. Peterson

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, FWS, EC, Washington, D.C.
Regional Director, FWS, Habitat Resources, Albuquerque, New Mexico

MODIFICATIONS AND CORRECTIONS TO THE DRAFT RMP/EIS

MODIFICATIONS AND CORRECTIONS TO THE DRAFT RMP/EIS

INTRODUCTION

The modifications and corrections section contains revisions made to the Draft Resource Management Plan/Environmental Impact Statement (RMP/EIS) based on new or more complete information, changes in BLM guidance since release of the Draft, or errors and omissions identified through the public review process. Minor changes are incorporated into the Errata section below. Where significant changes have been identified, the entire page has been reprinted with changes highlighted.

ERRATA

The following changes in the Draft RMP/EIS are of editorial nature and are relatively minor. Consequently, the affected pages have not been reprinted in full. These changes are to be incorporated into the Draft RMP/EIS.

Throughout document. References to surface disturbing activities related to the Jornada Del Muerto and Butterfield Trails should read: No surface disturbing activities would be allowed in an area a 1/4 mile from each side of the trails.

Throughout document. References to acreage figure for the Percha Creek Riparian Area should be changed from 320 to 280.

Throughout document. References to ORV acreage figures under Special Management Areas should be changed as follows: under Balanced Alternative, acres open--1,668,529 to 1,667,134, acres limited--83,096 to 83,056; under Production Alternative, acres open--1,754,265 to 1,752,830; under Protection Alternative, acres open--1,524,355 to 1,522,960, acres closed--9,600 to 9,560; and under No Action Alternative, acres undesignated--1,636,665 to 1,635,230.

CHAPTERS

Page 2-1, under Issue 1 - Rangeland Management, line 3. Add the phrase, or improvement of wildlife habitat (selected M allotments) as follows:...(Category I allotments) or improvement of wildlife habitat (selected M allotments).

Page 2-1, paragraph 4, line 2. Change 870,163 to 879,858.

Page 2-3, paragraph 3, line 1. Add the phrase, and selected Category M allotments, as follows:...for Category I and selected Category M allotments would be monitored.

Page 2-3, paragraph 3, line 4. Add word, remaining, as follows: The remaining allotments proposed for Categories M...

Page 2-4, numbered item 5, line 11. Change existing to designated, as follows:...be limited to designated roads and trails.

Page 2-10, Issue 1--Rangeland Management, Item 1. Delete the last sentence and replace with the following: New rangeland improvements would be implemented on a request basis by permittees.

Page 2-16, under Allotment-Specific Management Actions for the Category I Allotments, line 2. Add the phrase, and selected M allotments, as follows:...allotment in Category I and selected M allotments varying with each alternative.

Page 2-17, line 10. Add the phrase, and selected M allotments, as follows:...Category I and selected M allotments would incorporate grazing...

Page 2-23, paragraph 3, first sentence. Delete first sentence. Replace with the following sentence: Additional HMPs are being considered for approximately 844 acres of riparian habitat within the Resource Area which is located primarily north of Alamogordo in Otero County and along Percha Creek in Sierra County.

Page 3-1, Climate. Add the following sentence as the last paragraph of this section. Depending on latitude and elevation, evaporation rates from small, open bodies of water range from 64 to 72 inches per year.

Page 3-33, Table 3-13, Footnote a/, Line 5. Add the phrase portions of as follows:...private land (i.e., portions of the Rio Grande Valley). In some...

Page 4-4, under Butterfield Trail heading. Add the words not and locatable as follows:...rare earth minerals, would not inhibit locatable mineral exploration and development.

Page 4-4, under Jornada del Muerto Trail heading, paragraph 1, second sentence. Add the word leasable as follows:...would inhibit leasable mineral exploration and development.

Page 4-4, under Soils, line 1. Add the phrase, and selected Category M, as follows:...Under the Balanced Alternative, Category I and selected Category M allotments would be.

Page 4-6, under Water Resources, line 1. Add the phrase, and selected Category M, as follows:...rangeland management on Category I and selected Category M allotments...

Page 4-9, third full paragraph, line 9. Add the phrase, and selected Category M, as follows:...10 points on allotments under the Category I and selected Category M...

Page 4-31, under Geology and Minerals, paragraph 1, line 5. Add the word leasable as follows:...could have a small impact on leasable mineral activity.

Page 4-35, third paragraph, line 2. Add the phrase, and selected Category M, as follows:...monitoring procedure on Category I and selected Category M allotments.

Page 4-35, fourth paragraph, line 9. Add the phrase, and selected Category M, as follows:...on allotments under the Category I and selected Category M...

Page 4-40, under Livestock Grazing heading, second paragraph, line 9. Delete the phrase:...and management status.

Page 4-48, under Percha Creek Riparian Area heading. Delete the second sentence and replace with the following: Fencing of this area would not prohibit locatable mineral exploration, development, and production.

Page 4-54, under Livestock Grazing heading, first paragraph, line 15 and 16. Delete the phrase, and management status.

Page 4-64, under Livestock Grazing heading, first paragraph, line 6 and 7. Delete the phrase, and management status.

TABLES

Table 2-3, Summary of Alternatives. The changes made to the Summary of Alternatives Table under the Summary of the Draft RMP/EIS Section also apply to this table.

Table 2-4, Summary of Impacts Table. The changes made to the Summary of Impacts Table under the Summary of the Draft RMP/EIS Section also apply to this table.

APPENDICES

Page A-15, (Appendix A-3), Area 7, line 2. Change 26 to 20, as follows:...17 S. 10 E. 20 NW1/4SE1/4 40.

Pages D-29 to D-31, (Appendix D-8). Delete Management Status column and footnote a/.

Pages D-32 to D-34, (Appendix D-9). Delete Management Status column and footnote b/.

TECHNICAL REPORTS

Technical Report II-1, Southern Rio Grande Management Framework Plan Decisions. Add Record of Decision for El Paso Electric 345 KV, Springerville to Deming, Transmission Line Project, MFP Amendment/EIS, September, 1985.

CHANGES TO THE TEXT

As a result of changes due to public comments, other agency review, and internal review, the following Draft RMP/EIS pages have been reproduced in full.

Draft Page	Final Page
2-2	115
2-14	116
2-25	117
3-2	118
3-36	119
4-3	120
4-14	121
4-15	122
4-16	123
4-24	124
4-49	125
4-50	126
D-1	127
D-14	128
D-15	129
D-16	130
D-16 (continued)	131
Map 2-6 follows 2-9	132
Map 3-7 follows 3-34	133

changes would be needed. These could be implemented over a 5-year period following the issuance of the decision. Following consultation with the permittee, BLM proposes to establish the following:

-- proper level of forage utilization;
-- initial stocking rate;
-- the kind of livestock allowed;
-- the period of use;
-- areas to be excluded from livestock grazing; and
-- the initial allotment of forage to big game species.

At the end of the monitoring period, the BLM proposes to establish:

-- proper stocking rate;
-- grazing treatments; and
-- rangeland developments and vegetation treatments necessary to properly manage the renewable resources of the Resource Area.

It is assumed that initial authorized livestock grazing use on all allotments would approximate the 5-year average (135,261 AUMs) and not exceed preference (147,916 AUMs). There are presently 8 allotments (127,678 acres) with existing Allotment Management Plans (AMPs) approved prior to 1975. All allotments have prescribed grazing systems. Under the Balanced Alternative, the management plans for these allotments would continue. The past 5-year (1979-1983) average licensed grazing use indicates that 135,261 AUMs of forage were authorized for use by livestock annually on public land in Otero and parts of Lincoln, Eddy, and Chaves Counties. This information will be used as a basis for negotiating initial livestock grazing use. However, information indicates that a lower level of livestock grazing use may be more appropriate in some areas in fair and poor condition.

Following completion of the Final RMP, a Rangeland Program Summary outlining the rangeland management program will be written and distributed to the public. For the remaining Category M and C allotments, where no changes in management or livestock numbers are anticipated, a letter of decision will be issued within 6 months after the RPS is issued. Before adverse decisions are made, each adversely affected permittee will be contacted and the "Section 8" Rangeland Consultation Policy (see Appendix D-2) will be followed.

Where information is lacking, unreliable, or if an agreement cannot be reached, an allotment-specific monitoring program will be initiated for a period of up to 5 years. If monitoring studies show a need for adjustments, a second decision will be issued which sets forth the adjustment to be implemented over a 5-year period. The 5-year adjustment will be phased in with equal reductions or increases being put into effect during the first, third, and fifth year. An evaluation of the allotment will be made prior to implementing the third and fifth year adjustment. Decisions initiating monitoring studies would be issued as funding became available to initiate the studies. The 5-year adjustment period can be waived if an agreement is reached with the permittee to implement the decision in less than 5 years or the total suspension is 15 percent or less of the authorized active grazing use for the previous year.

Energy and Minerals

Oil, Gas, and Geothermal Leasing

Oil, gas, and geothermal leasing in the Resource Area was analyzed in a programmatic EA completed in 1981 (BLM 1981). Minerals decisions carried forward from previous documents are contained in Technical Report II. In general, public land is available for oil and gas and geothermal leasing. Usually, leases will be issued with only standard stipulations attached. Some situations require that leases have special stipulations attached to protect sensitive resource values. In highly sensitive areas where special stipulations are not sufficient to protect important resource values, no surface occupancy stipulations will be attached to the lease or leasing will not be allowed. Oil and gas and geothermal drilling is evaluated on a case-by-case basis through the EA process.

Locatable Minerals

Under the Mining Law of 1872, a person has the right to explore, develop, and produce minerals on public land. Unlike the management of leasable and saleable minerals where BLM has the authority to approve mining operations, locatable mineral activities are regulated by BLM only to prevent unnecessary or undue degradation of the lands. As such, BLM does not manage locatable mineral development on public land.

Public land is generally open to mineral entry and development except for specific areas withdrawn from mineral location. These areas are noted on the Master Title Plats available for review at the Las Cruces District Office. Mineral exploration, development, and production on public land is regulated under Title 43 Code of Federal Regulations (CFR) Part 3800 to prevent unnecessary and undue damage to the surface resources.

Examinations of mining claims to determine their validity may be initiated under the following conditions:

1. where a mineral patent application has been filed and a field examination is necessary to determine the validity of the claim(s);

2. where there is a conflict with a land disposal application, and it is determined to be in the public interest to do so, or where the statute authorizing the disposal requires clearance of any encumbrance;

3. where the land is needed for a Federal program; or

4. where a claim is located under the guise of the mining law and flagrant unauthorized use of the land or mineral resource is occurring.

Common Variety Mineral Materials

Applications for the removal of common variety mineral materials, including sand and gravel, are processed on a case-by-case basis. Stipulations to protect important resource values are attached based on an interdisciplinary environmental review of each proposal, or, in the case of designated community pits, a one-time review of the pit area. A programmatic EA for mineral material disposal in the Las Cruces District was prepared in 1979 (BLM 1979).

Public land within areas added by Congress to the National Wilderness Preservation System will be managed in compliance with the Wilderness Management Policy (BLM 1981). Site-specific wilderness management plans will be developed for designated wilderness areas.

Areas reviewed by Congress but not added to the National Wilderness Preservation System will be managed in accordance with other applicable guidance provided by this RMP/EIS.

Cultural Resources

Cultural resources will continue to be inventoried and evaluated prior to any undertaking which might affect eligible or potentially eligible cultural resources, in accordance with the consultation procedures outlined in 36 CFR 800 and the Statewide Programmatic Memorandum of Agreement (PMOA) among the Bureau of Land Management, Advisory Council on Historic Preservation, and the State Historic Preservation Officer (NMSO-168).

BLM will begin a plan of action to establish procedures and priorities for conducting a 10 percent Class II cultural resource inventory and will initiate fieldwork to accomplish this goal.

Cultural Resource Management Plans will be developed for the Rattlesnake Hill archaeological district, the Alamo Mountain petroglyphs area, the Lone Butte area, sites on McGregor Range, and the Butterfield and Jornada del Muerto trails. The objective of the plans will be to protect the cultural resources in the respective areas within constraints set by the RMP/EIS. Site-specific actions will be determined when the plans are developed and EAs will be completed before any implementation.

Fire Management

The WSRA will continue to participate in the Joint Powers Agreement between the State of New Mexico and the United States Departments of Agriculture and the Interior. This agreement provides for mutual wildland fire assistance between the participating agencies. The WSRA is covered by the Lincoln Operating Unit established under this agreement.

The WSRA will continue to carry out the BLM's basic suppression policy of initial attack of all wildfires on or threatening public land with the objective being to contain the fire during the first burning period. This policy is implemented unless specific fire activity plans are prepared and approved in advance. Fires will be suppressed on all nonpublic lands in the WSRA initial attack zone.

BLM policy provides for limited fire suppression action in areas where the expense associated with the usual suppression procedures is not warranted. BLM determines the appropriate response to a wildland fire based upon suppression difficulty, the resource values threatened, and hazards to fire crews. Limited suppression plans are approved in advance defining the conditions in which a wildfire will be declared a limited suppression fire. Crew safety, along with economic factors, is normally the principal objective in designating an area for limited suppression.

LANDS

The WSRA contains about 7 million acres of which approximately 1.8 million acres are public land administered by the Bureau of Land Management (BLM). Private land accounts for about .9 million acres. In addition, about 2 million acres of public land have been withdrawn for use by the White Sands Missile Range, Fort Bliss, the Bureau of Reclamation, the Federal Aviation Administration, and others. (See Table 3-1.) With the exception of the White Sands Missile Range in Otero County, the BLM is involved in the administration of some of the uses of these withdrawn lands. On most of the public land, the primary use is livestock grazing. Other land uses include mining, mineral material excavation, rights-of-way, leasing, and dispersed recreation.

TABLE 3-1
WSRA LAND STATUS IN ACRES[a]/

Landholders/Managers	Otero County	Sierra County	Total
Public Land	929,578	823,252[e]/	1,752,830[e]/
Withdrawn Land[b]/	1,459,752	538,036	1,997,788
Other Federal Lands	497,296	467,587	964,883
Indian Land	460,255	-0-	460,255
State Land	449,908	361,195	811,103
Private Land	451,531	510,090[e]/	961,621[e]/
Total Federal[c]/	2,886,626	1,828,875[e]/	4,715,501[e]/
Total Acreage[d]/	4,248,320	2,700,160	6,948,480

Sources: Statistical Abstracts, 1979-80.
The Bureau of Land Management Factbook, 1982.
Master Title Plats.

Notes: a/Inland water areas are included in ownerships.
b/Includes that portion of McGregor Range cooperatively managed by BLM and U.S. Army; approximately 515,000 acres.
c/Includes BLM, withdrawn, and other Federal lands not listed (such as Forest Service and National Park Service).
d/Includes total Federal, Indian, State, and private lands.
e/Change in acreage from Draft RMP/EIS due to Navajo-Hopi Exchange Record of Decision (dated June 7, 1985). Affected lands were:

T. 15 S., R. 8 W., NMPM
Sec. 21: Lots 1, 2, 3, 6, 7, 8 (235.81 acres)
22: N1/2, N1/2SW1/4, NW1/4SE1/4 (440 acres)
23: W1/2SE1/4, SE1/4SE1/4 (120 acres)
25: SW1/4NW1/4 (40 acres)
26: NE1/4 (160 acres)
35: S1/2, SW1/4NW1/4, S1/2NE1/4 (440 acres)

Total of 1,435.81 acres

by the BLM as a recreation and interpretive area. The Alamo Mountain Petroglyph Site is a large concentration of Mogollon petroglyphs and several Apache petroglyphs. In addition, the area contains a Butterfield Trail stage station. The Rattlesnake Hills archaeological district is a large concentration of El Paso Phase Jornada Mogollon sites. The Jornada del Muerto Trail was part of the main road that connected Santa Fe with Mexico; there are a number of segments of the Trail on public land.

The Lone Butte area is known to contain a Folsom campsite. It is one of several known Folsom campsites in the Tularosa Basin and contains the potential of adding important data about a very early phase in the occupation of North America. A large El Paso Phase pueblo is located on the west side of the Jarilla Mountains. It probably contains several dozen rooms buried under the sand. Some of the sites on the McGregor Range are large El Paso Phase villages located along drainages emerging from the Sacramento Escarpment. The Escondido site and Site No. 030-200 are some of the largest El Paso Phase sites in existence.

Public land that has known sites or the potential for having high site density within the White Sands Resource Area include the following:

1. North and east of Pinon;
2. Lands near Iron Mountain, especially those adjacent to Cuchillo Negro;
3. North and east of Cuchillo Mountain;
4. The area surrounding Chise;
5. Public land near Trujillo, Tierra Blanca, and Macho Creeks;
6. The area surrounding Lake Valley and Nutt;
7. Public land along the Tularosa River;
8. Areas north of McGregor Range; and
9. All major drainages and springs.

Although no specific effort was made to identify specific Native American religious sites, none are known to exist in the Resource Area.

SOCIAL AND ECONOMIC CONDITIONS

Introduction and Description of Study Region

History

In Sierra County, the Apache dominance of the Black Range limited early economic activity. Gold was discovered in 1877 at Hillsboro with additional strikes in other areas. Prior to 1904, mining activity occurred in the Kingston (Black Range), Lake Valley, and Hillsboro mining districts. The Kingston (Black Range) district produced ore having a value of about

Geology and Minerals

Barring market fluctuations, the short- and long-term impacts to mineral exploration and development would be basically the same under this alternative, and would result from three major actions: (a) the designation of Special Management Areas as limited or closed to off-road vehicle (ORV) travel, restricted to limited surface disturbance, or designated as No Surface Occupancy (NSO); (b) the transfer of mineral or associated surface estate from BLM to private or other jurisdiction; and (c) the development or acquisition of access. The first action is the only one anticipated to have any impact on minerals.

The designation of areas as limited to ORV use, closed to ORV use, limited surface disturbance, and NSO could have a significant impact on leasable mineral exploration and development, primarily because the proposed locations of many of these designations are in areas of moderate to high mineral potential. The following areas are of particular concern.

Three Rivers Watershed Treatment Area (21,446 acres)

This area coincides with the Southern Sierra Blanca coal field. Limitation of ORV use in the area could inhibit exploration and development.

Percha Creek Riparian Area (320 acres)

Located within the Hillsboro mining district, this area has produced gold, silver, and copper. Fencing of this area would not prohibit locatable mineral exploration, development, and production. Additionally, BLM mining claim records dated September 17, 1984, show numerous mining claims located in this area.

Cornudas Mountains (15,490 acres)

This area is known to contain rare earth minerals, including beryllium. The limitation of ORV travel would not inhibit locatable mineral exploration. Additionally, BLM mining claim records dated September 17, 1984, show numerous mining claims located in parts of this area.

Alamo Mountain (200 acres)

This area contains high-quality limestone. Permits for mineral materials would not be issued in this area. The NSO designation and closure to ORV travel would prohibit leasable mineral exploration and development.

Jarilla Mountains (120 acres)

Gold, copper, iron, and other locatable minerals have been produced from this vicinity. Closing the area to ORV travel could inhibit future mineral exploration; however, only to the extent that a Plan of Operations would have to be submitted by the operator. Additionally, BLM mining claim records dated September 17, 1984, show numerous mining claims located in this area.

alternative and Table 4-2 for these changes by range site under the Balanced Alternative.)

Desirable and intermediate forage species production would increase three to four times on chemically-treated areas. Vegetation ground cover would also increase in the long-term.

There would be a 40-acre study plot exclosure designated for each of the 41 range sites and one pseudoriparian Standard Habitat Site (SHS). Protection of these sites from livestock grazing and surface disturbing activities would provide an undisturbed area that would be useful in establishing trends in vegetation change and provide baseline data that would improve understanding of the ecology of each site (1,680 acres).

The protection of Lake Holloman and adjacent lands in addition to the riparian area along Percha Creek would provide protection of vegetation on 1,480 acres.

Under land tenure adjustment, vegetation on 45,000 acres would be lost from BLM jurisdiction within the Resource Area.

In the process of providing legal access to public land within the Resource Area, vegetation on 576 acres would be lost in the construction of new roads.

Threatened or Endangered Plant Species

Most of the threatened or endangered plant species are located in areas where livestock grazing is limited due to rocky or mountain slopes. Many are unpalatable and would seldom be grazed. These plants could be damaged from trampling or from livestock grazing the associated species. The reduction in livestock numbers under the Balanced Alternative would cause less disturbance to the habitat and reduce livestock grazing on associated plant species in the short-term. However, in the long-term, livestock numbers would increase. Areas where threatened or endangered plant species occur would be identified and avoided where adverse impacts would occur from vegetation treatments and rangeland developments.

Livestock Grazing

Under the Balanced Alternative, 106 allotments would be grazed and 4,337 acres would remain unallotted.

There are 67 allotments in Category I and selected Category M allotments covering 879,858 acres or 93 percent of the public land in Otero County and parts of Lincoln, Eddy, and Chaves Counties. Allotments in Category I and selected Category M are shown in Appendix D-1.

Rangeland management in areas with resource conflicts (riparian areas, ACECs, known herd units, and areas where threatened or endangered species may occur) could be significantly impacted depending on the management scheme chosen. Production practices, types of operations, periods of use, and class of livestock could all be affected. In the

short-term, livestock grazing use could be adjusted based on utilization studies and actual grazing use. For analysis purposes, livestock grazing would be reduced 35 percent on acres in poor ecological condition and 20 percent on acres in fair ecological condition. Using the worst-case situation, initial adjustments on Category I and selected Category M allotments would be 22 percent or 32,578 AUMs below preference to 116,079 AUMs. These AUMs would be held in suspended preference.

Yearlong grazing, a common method of livestock management in the semiarid desert rangeland region, would continue in the short-term. Semiarid rangelands traditionally have been grazed yearlong and research shows that these rangelands can be grazed at any time of year without serious detriment if the intensity of grazing is not severe and periods of grazing alternate with suitable periods of rest. The primary shortcomings of continuous yearlong grazing is that it leads to excessive use in areas of cattle concentration and wasted forage where cattle rarely graze. Favorite plants and areas of a pasture are regrazed first each summer, thereby keeping them in a state of lower condition (Martin 1975 and 1978). Systems such as rest during alternate years do not provide enough recovery time for grasses to regain vigor, seed, and establish new seedlings (Arizona Interagency Range Committee 1973 [1974]). Possible grazing management treatments that could be used on these Category I allotments are found in the Agricultural Experiment Station Research Report 467, Characteristics of Grazing Systems (Gray et al. 1982).

Chemical treatment of creosotebush and mixed desert shrub would occur on 58,742 acres of public land. In the short-term, there would be a 6,017 AUM increase on 18 allotments in Otero County and parts of Lincoln, Eddy, and Chaves Counties after treatment. Allotments with acres of vegetation treatment and increased AUMs are shown in Appendix C-1. Livestock grazing on these treated areas would be excluded for a minimum of two growing seasons to give perennial forage a chance to reestablish. In the long-term, the increased forage production on these allotments would offset reduced grazing use during the deferment. With improved ecological condition and increased perennial forage, ground cover would also increase.

Monitoring studies, including rangeland condition and trend, utilization patterns, actual use, and precipitation records would be used to evaluate and make adjustments in livestock numbers. Adjustments in livestock use would be based on forage production and upward or downward trends in rangeland condition. Permittees would be involved in all aspects of developing grazing management plans.

In the long-term, projected livestock AUMs would increase 20 percent or 30,171 AUMs above preference on Category I and selected Category M allotments. Proposed rangeland developments would be implemented first on Category I allotments on a priority basis. (See Appendix D-5.) New rangeland developments would redistribute grazing use and relieve grazing pressure around existing developments in the short-term. Presently severe or heavily used areas would show improvement in the long-term.

There are 29 allotments in the remaining Category M covering 52,290 acres or 5 percent of the public land in Otero County and parts of Lincoln, Eddy, and Chaves Counties. Allotments in Category M are shown in Appendix D-1. No change in management would be proposed on these allotments since they are in satisfactory or better ecological condition. Forage production could increase, but probably not enough in the long-term to warrant increased livestock numbers. The 5-year average license use was used for the short- and long-term AUM projections. Rangeland developments could be implemented dependent upon funding and priorities on the Category M allotments. (See Appendix D-5.) Impacts from the proposed rangeland developments would be the same as discussed under the Category I allotments.

Ten allotments in Category C cover 17,519 acres or 2 percent of the public land in Otero County and parts of Lincoln, Eddy, and Chaves Counties. Allotments in Category C are shown in Appendix D-1. No change in management would be proposed on these allotments. The 5-year average licensed use was used for the short- and long-term AUM projections since management objectives or goals are not proposed. Proposed rangeland developments could be implemented dependent upon funding and priorities on the Category C allotments. (See Appendix D-5.) Impacts from the proposed rangeland developments would be the same as discussed under the Category I allotments.

Category M and C allotments would maintain their present 5-year average licensed use of 8,510 AUMs in the short- and long-term. However, these allotments could be grazed to preference (9,084 AUMs).

Criteria for categorizing allotments are shown in Appendix D-3. Five-year average licensed use and preference by allotment for all allotments are listed in Appendix D-8. Acres in each ecological condition class by allotment used in categorizing I, M, and C allotments are shown in Appendix D-4. Appendix D-9 shows carrying capacity by allotment under the Balanced Alternative.

Overall projections on all allotments show a short-term reduction in livestock AUMs of 31,837 or 22 percent below the grazing preference. These AUMs would be held in suspended preference and could be restored, depending on improvement changes in the vegetation resource as a result of rangeland developments and vegetation treatments. In the long-term, 181,864 AUMs would be available for livestock use. This would be an increase of 33,948 AUMs or 23 percent above preference.

There would be a 40-acre study plot exclosure designated for each of the 41 range sites and one pseudoriparian SHS. Protection of these sites from livestock grazing and surface disturbing activities would provide an undisturbed area that would be useful in establishing trends in vegetation change and provide baseline data that would improve understanding of the ecology of each site. Grazing would be eliminated on 1,680 acres, totaling 246 AUMs.

The protection of Lake Holloman and adjacent lands in addition to the riparian area along Percha Creek would provide protection of vegetation and would eliminate livestock grazing on 1,480 acres, totaling 217 AUMs.

Wilderness

The pipeline and drinking trough within the Brokeoff Mountains WSA could cause nonimpairing long-term impacts to the local area's naturalness. The pipeline, drinking trough, earthen stock tank, and associated vehicular access within the former Little Dog Canyon WSA, part of the Guadalupe Escarpment, could cause impacts to the local area's naturalness and could foreclose future options to consider the area for a wilderness designation.

Cultural Resources

In the long-term, trampling in the area would increase. This would lead to a moderate increase in artifact breakage and movement over the present situation. The following rangeland improvements would impact known cultural resources or probable areas of high site density.

1. Brush control projects north and west of Alamo Mountain would affect the Butterfield Trail and the Alamo Mountain petroglyphs.

2. Brush control projects in Salt Basin are in a probable high site density area.

3. The brush control project in T. 26 S., R. 14 and 15 E., may affect the Butterfield Trail.

4. The fence south of Lone Butte and the drinking trough south of Twin Buttes are in high site density areas.

The brush control projects would alter the vegetation composition in the long-term along the Butterfield Trail and make the Trail harder to trace. The surveys for the rangeland developments would locate 12 sites based on 1 site per 319 acres and 40 acres surveyed for each water project. The trampling caused by wildlife would increase by approximately 50 percent; however, since most of the wildlife are found in rocky areas, they would have a low impact on trampling.

Improving erosion conditions on 62,586 acres would decrease the rate of site destruction on an estimated 196 sites. These sites would be available for study by archaeologists for a longer period of time.

The limiting of ORVs to existing roads and trails in the erosion areas would slightly decrease the amount of churning to the sites from current use. Fencing the riparian area along Percha Creek would eliminate the effects of trampling on any sites present in the area; since it is close to a water source, the probability of a site being present is greatly increased. The 42 exclosures would eliminate trampling on any sites present in them. By selecting, for exclosure, 40-acre parcels that contain significant sites, there would be an elimination of ORV impacts on those cultural resources. The elimination of trampling around Lake Holloman would protect an estimated three sites. By limiting ORV use to existing roads and trails, there would be a minor impact to cultural resources by eliminating churning to sites in the area. By limiting or closing ORV use at the Three Rivers Petroglyph Site and Picnic Area, the Alamo Mountain petroglyphs, Lone

Cornudas Mountains (15,490 acres)

This area is known to contain rare earth minerals, including beryllium. The limitation of ORV travel could not inhibit locatable mineral exploration. Additionally, BLM mining claim records dated September 17, 1984, show numerous mining claims located in the area.

Alamo Mountain (340 acres)

This is an area of high-quality limestone. Permits for mineral materials would not be issued in this area. The NSO designation and closure to ORV travel would prohibit leasable mineral exploration and development.

Jarilla Mountains (320 acres)

Gold, copper, iron, and other locatable minerals have been produced from this vicinity. Closing the area to ORV travel could inhibit future mineral exploration; however, only to the extent that a Plan of Operations would have to be submitted by the operator. Additionally, BLM mining claim records dated September 17, 1984, show numerous mining claims located in the area.

Butterfield Trail (2,220 acres)

Limitation of surface disturbance in this area, parts of which contain beryllium and other rare earth minerals, would not inhibit locatable mineral exploration and development.

Jornada del Muerto Trail (1,252 acres)

The northern part of the area proposed under this alternative lies within the Engle coal field. Limitation of surface disturbance would inhibit leasable mineral exploration and development.

Cuchillo Mountains (6,160 acres)

This area has produced gold, silver, iron, and other locatable minerals in the past. Limitation of ORV travel would not inhibit mineral exploration and development. Additionally, BLM mining claim records dated September 17, 1984, show numerous mining claims located in the area.

Lone Butte (320 acres)

This area has potential as a possible source of aggregate for road construction. Limitation of ORV travel would effectively prohibit the development of this resource.

The proposed limited ORV designations of the Tularosa Southeast and Brokeoff Mountains watershed areas would have slight impacts to mineral resources (sand and gravel in the Tularosa area and sodium in the Salt Basin), but they would be insignificant. Impacts could result from the withdrawal of 4,300 acres of land from mineral entry along the Sacramento Escarpment, but would be insignificant.

Impacts to leasable mineral exploration and development resulting from the designation of 92 40-acre study plot exclosures would probably be insignificant because of their small size. The limitation of ORV travel on 7,779 acres of public land in the Brokeoff Mountains could affect leasable mineral exploration and development, but it is not expected to be significant.

Land tenure adjustment could remove up to 154,000 acres of mineral or associated surface estate from BLM jurisdiction, although the actual figure is expected to be much lower. Many of the lands earmarked for disposal under this alternative fall within areas of moderate to high mineral potential. These include lands valuable for locatable minerals in the Cuchillo Mountains, Hillsboro area, and Macho mining district, and lands valuable for sand and gravel resources along the Sacramento Escarpment. As mentioned in Chapter 2 (Management Guidance Common to All Alternatives), however, site-specific mineral investigations would be made on any lands proposed to leave BLM jurisdiction. Because of this, impacts would be insignificant. Any loss of revenue from mineral leases or saleable minerals would also be insignificant.

The development or acquisition of 165 miles of roads could have a small impact on mineral exploration, although this would not be significant.

Soils

Under the Protection Alternative, livestock grazing would be reduced 50 percent on 413,005 acres in poor ecological condition and 25 percent on 386,596 acres in fair ecological condition in the short-term. Soil loss would decrease slightly where vegetation condition and ground cover is improved. Long-term changes in total soil loss rates would not be significant when livestock forage use is 130,115 AUMs, approximately 4 percent below the current 5-year average.

Construction and installation of rangeland developments would disturb soils on approximately 196 acres in the short-term. In the long-term, 38 acres of soils would be lost from production of native vegetation by the newly installed developments.

Under the Protection Alternative, 73,601 acres would be considered for watershed treatments. The treatments would improve erosion condition of the watersheds by eliminating further headcutting, improving soil stability, increasing vegetation ground cover, and decreasing soil loss. The improved erosion condition of the treated areas would not significantly change the erosion condition of the total WSRA.

Under the Protection Alternative, 1,524,355 acres would be open to ORV use. Medium and fine textured soils would be susceptible to compaction and formation of ruts by ORVs, leaving these soils susceptible to the formation of gullies. Gravelly and cobbly soils typical of hilly terrain also become susceptible to accelerated erosion if soil structure is altered by vehicles' tires spinning and loosening soils when travelling up hills. Recreational ORV activity would continue around populated areas and during

APPENDIX D-1

PROPOSED MANAGEMENT CATEGORIES BY ALLOTMENT

Category I		Category M		Category C
7012	9052	[7003a/	9028	7015
7013	9056	7005a/	[9029a/	7017
7014	9058	[7033a/	9030a/	7019
*7022	9059	7035	[9031a/	7020
*7030	9062	7039	9041	7028
7031	9067	[7050a/	9043	7029
*7034		[7051a/	[9047a/	7049
7037		7052	9048	[7055
7044		7054	[9053a/	7063
*7065		[7056a/	9054	7070
*7066		7057	[9055a/	
*7080		[7067a/	9057	
9005		[7068a/	9060	
*9006		7069	9061	
9008		7072	[9063a/	
9010		[7074	[9064a/	
9011		7075	9065	
9016		7081	[9066	
9020		[9001a/		
9021		9002a/		
9023		[9003a/		
9032		9004		
[9033		9007		
9035		[9009a/		
9036		9012a/		
9037		9013a/		
9038		[9014a/		
9039		9015		
9040		[9017		
9042		[9018a/		
9044		9019		
9045		[9022		
9046		9024		
9049		9025		
*9050		[9026a/		
9051		9027		

Source: BLM Las Cruces District Office Files, 1983.

Notes: *Indicates allotments with Allotment Management Plans.

[a/These allotments were analyzed with the Category I allotments under the Balanced Alternative because of the presence of wildlife.

APPENDIX D-4

CATEGORIZATION AND PRESENT ACRES
IN EACH ECOLOGICAL CONDITION CLASS BY ALLOTMENT[a/]

Allotment Number	Public Land Acres	Ecological Condition Class (acres)[b/] Good	Fair	Poor	Unclassified Acres[c/]
		Category I			
7012	2,509			2,509	
7013	5,237		4,355	882	
7014	7,347			7,347	
*7022	5,234		3,307	1,927	
*7030	5,540			5,540	
7031	4,334			4,334	
*7034	25,503		1,155	24,348	
7037	40,724	4,136		36,588	
7044	49		49		
*7065	7,286		2,908	4,378	
*7066	2,819		1,478	1,341	
*7080	19,272	1,957	2,334	14,981	
9005	2,343	325	2,018		
*9006	42,265	16,779	19,448	6,038	
9008	2,125		1,953	172	
9010	43,175	11,813	25,102	6,260	
9011	6,975		2,382	4,593	
9016	7,218	573	6,645		
9020	17,925	27	558	17,340	
9021	10,227		8,756	1,471	
9023	1,594	584	1,010		
9032	5,783		997	4,786	
9033	19,438	354	749	18,335	
9035	30,352		5,662	24,690	
9036	32,705		23,722	8,983	
9037	10,863	5,792	5,071		
9038	7,367		290	7,077	
9039	16,158		9	16,149	
9040	12,011		3,839	8,172	
9042	7,133		1,579	5,554	
9044	3,674		1,394	2,280	
9045	2,213		2,213		
9046	19,699	12,493	2,454	4,752	
9049	17,635	7,101	4,119	6,415	
*9050	19,759	13,477	2,465	3,817	
9051	24,995	91	20,043	4,861	
9052	1,608	575	1,033		
9056	7,355	3,308	1,318	2,729	
9058	6,118	3,173	940	2,005	

CATEGORIZATION AND PRESENT ACRES
IN EACH ECOLOGICAL CONDITION CLASS BY ALLOTMENT[a]

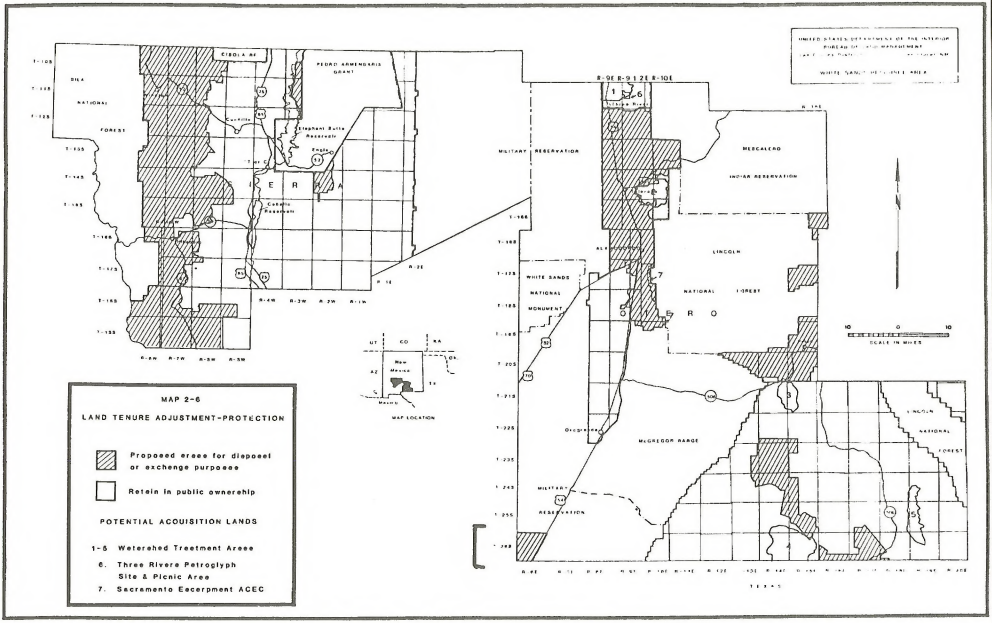
Allotment Number	Public Land Acres	Ecological Condition Class (acres)[b] Good	Fair	Poor	Unclassified Acres[c]
		Category I (continued)			
9059	2,476	458	2,018		
9062	9,573			9,573	
9067	4,709		381	4,328	
		Category M			
7003[d]	2,368		265	2,103	
7005[d]	934		203	731	
7033[d]	844		585	259	
7035	35				35
7039	19,073		977	18,096	
7050[d]	24,232	3,874	2,820	17,538	
7051[d]	16,795		1,147	15,648	
7052	773				773
7054	592				592
7056[d]	1,208			1,208	
7057	249			249	
7067[d]	6,259		673	5,586	
7068[d]	5,403		1,830	3,573	
7069	406		21	385	
7072	771				771
7074	59				59
7075	81				81
7081	425			425	
9001[d]	10,576	887	9,405	284	
9002[d]	6,500		3,520	2,980	
9003[d]	22,042	1,102	20,753	187	
9004	3,107		340	2,767	
9007	716				716
9009[d]	4,561	3,231		1,330	
9012[d]	4,807		550	4,257	
9013[d]	14,512		8,342	6,170	
9014[d]	7,210	3,562	2,066	1,582	
9015	79				79
9017	240	220	20		
9018[d]	55,827	14,686	40,327	814	
9019	80				80
9022	382				382

CATEGORIZATION AND PRESENT ACRES
IN EACH ECOLOGICAL CONDITION CLASS BY ALLOTMENT[a]

Allotment Number	Public Land Acres	Ecological Condition Class (acres)[b]			Unclassified Acres[c]
		Good	Fair	Poor	
		Category M (continued)			
9024	662				662
9025	1,773	157	1,006	610	
9026[d]	9,384	686	7,818	880	
9027	6,658	1,118	4,576	964	
9028	6,073	4,082	1,062	929	
9029[d]	3,460	479	1,677	1,304	
9030[d]	10,448		5,853	4,595	
9031[d]	43,386	9,122	33,531	733	
9041	733				733
9043	1,448				1,448
9047[d]	9,537	6,491		3,046	
9048	6,115		2,501	3,614	
9053[d]	37,939		29,662	8,277	
9054	82				82
9055[d]	5,770	974	2,866	1,930	
9057	240				240
9060	1,052				1,052
9061	363				363
9063[d]	16,598	675	3,732	12,191	
9064[d]	37,693	3,854	33,622	217	
9065	108				108
9066	155				155
		Category C			
7015	681				681
7017	837				837
7019	437				437
7020	118				118
7028	975				975
7029	2,235				2,235
7049	826				826
7055	9,743			9,743	
7063	1,589				1,589
7070	78				78

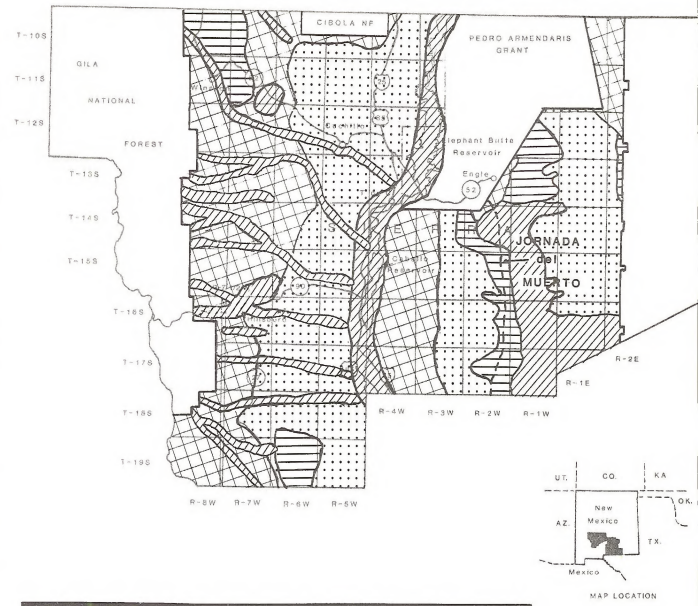
Source: BLM Las Cruces District Office Files, 1984.

Notes: *Indicates allotments with Allotment Management Plans.
a/Acres used were calculated through the digitizing system and will not match case file acres. (See Appendix C-4 for methodology on digitizing.)
b/There are no acres in the excellent ecological condition class.
c/Section 15 allotments.
d/These allotments were analyzed with the Category I allotments under the Balanced Alternative because of the presence of significant wildlife values.



SOURCE: BLM Las Cruces District Files 1984.

MAP 2-6 Land Tenure Adjustment-Protection



MAP 3-7 CULTURAL RESOURCES

1. Three Rivers Petroglyphs
2. Ojos de los Alamos Station
3. Cornudas de los Alamos Station

Possible high site density

Probable high site density

Probable low site density

Insufficient archaeological or environmental data to determine site density

SOURCE: BLM Las Cruces District Files 1984.

ADDITIONS TO THE DRAFT RMP/EIS

APPENDIX E
WILDLIFE

IN REPLY REFER TO:
6820 (037)
X1601

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT OFFICE
1800 Marquess Street
Las Cruces, New Mexico 88005

22 MAY 1985

Mr. John Peterson
U.S. Fish and Wildlife Service
Ecological Services
P. O. Box 4487
Albuquerque, NM 87196

Dear Mr. Peterson:

Pursuant to the May 6, 1985, phone conversation with Brian Hansen of your office, please find the enclosed Biological Assessment for the White Sands Resource Management Plan/Environmental Impact Statement addressing impacts on species provided in your species list dated January 2, 1985. The assessment includes, in addition to the two species on your list (Echinocereus kuenzleri and Argemone pleiacantha ssp. pinnatisecta), numerous other species addressed as State concerns. Some of these are Federally listed, proposed, or candidates for listing. The document is separated into five parts: Introduction, Description of the Action, Species List, Determination of Effect by Species, and Summary of Effects by Agency Concern. The taxa are listed and discussed by groups including birds, mammals, reptiles, and plants and are alphabetized by scientific name without regard for agency concern. Echinocereus kuenzleri and Argemone pleiacantha ssp. pinnatisecta are discussed on pages 19-21 plus, a map and 22-23, respectively. A Summary of Effects by Agency Concern is found on pages 32-33.

We have determined that there are potential may affect situations on Argemone pleiacantha ssp. pinnatisecta with both beneficial and adverse affects identified. We will conduct appropriate field exams and Section 7 consultation prior to implementation of individual actions so that impacts can be more accurately identified and dealt with. There was a no affect determination on Echinocereus kuenzleri. In view of the data presented and contingent upon agreement in your biological opinion, we conclude this informal consultation. Also, please be aware that this Biological Assessment will be held as a technical report for the planning document and will be subject to public review. If you have problems with this please let us know. Thank you for your cooperation.

Sincerely,

/s/ Daniel C. B. Rathbun

Daniel C. B. Rathbun
District Manager

Enclosure (1)
1-Biological Assessment (45 pp)

IN REPLY REFER TO:
6820 (037)
X1601

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT OFFICE
1800 Marquess Street
Las Cruces, New Mexico 88005

22 MAY 1985

Mr. Harold Olson
New Mexico Department of Game and Fish
Villagra Building
Santa Fe, NM 87503

Dear Mr. Olson:

Pursuant to the May 6, 1985, phone conservation with Bill Baltosser of your office, please find the enclosed Biological Assessment addressing Threatened and Endangered Species for the White Sands Resource Management Plan/Environmental Impact Statement provided in your letter of November 16, 1984. The assessment includes, in addition to the State listed animals, numerous other species (mainly plants) addressed as concerns for the U.S. Fish and Wildlife Service and the New Mexico State Heritage Program.

The document is separated into five parts: Introduction; Description of the Action; Species List; Determination of Affect by Species; and Summary of Effects by Agency Concern. The taxa are listed and discussed by groups including birds, mammals, reptiles, and plants and are alphabetized by scientific name without regard for agency concern. State threatened and endangered animals are discussed on pages 13-18. The Summary of Effects by Agency Concern is found on pages 32-33.

In all cases, we will conduct individual field exams and consult with Game and Fish prior to implementation of individual actions so that impacts can be more accurately identified and dealt with. Also, please be aware that this Biological Assessment will be held as a technical report for the planning document and will be subject to public review. If you have problems with this please let us know. Thank you for your cooperation.

Sincerely,

/s/ Daniel C. B. Rathbun

Daniel C. B. Rathbun
District Manager

Enclosure (1)
1-Biological Assessment (45 pp)

IN REPLY REFER TO:
6840 (037)
x1601

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT OFFICE
1800 Marquess Street
Las Cruces, New Mexico 88005

22 MAY 1985

Paul Knight
New Mexico State Heritage Program
Villagra Building
Santa Fe, NM 87503

Dear Mr. Knight:

Pursuant to the phone conversation between you and Mike Howard of my office please find the enclosed Biological Assessment for the White Sands Resource Management Plan/Environmental Impact Statement addressing impacts on plant species of concern to you. The assessment includes, in addition to your plants, numerous other plant and animal species of concern to the Fish and Wildlife Service and New Mexico Game and Fish.

The document is separated into five parts: Introduction, Description of the Action, Species List, Determination of Affect by Species, and Summary of Effects by Agency Concern. The taxa are listed and discussed by groups including birds, mammals, reptiles, and plants and are alphabetized by scientific name without regard for agency concern. State plants of concern are discussed on pages 18 - 31. A summary of effects by agency concern is on pages 32 -33.

We will conduct appropriate field exams and consultation as necessary prior to implementation of individual actions so that impacts can be more accurately identified and dealt with. Also, please be aware that this Biological Assessment will be held as a technical report for the planning document and will be subject to public review. If you have problems with this please let us know. Please review the assessment and submit comments as you feel appropriate. Thank you for your cooperation.

Sincerely,

/s/ Daniel C. B. Rathbun

Daniel C. B. Rathbun
District Manager

Enclosure

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Field Supervisor
Ecological Services, USFWS
Post Office Box 4487
Albuquerque, New Mexico 87196

Cons. #2-22-85-I-019

June 24, 1985

Memorandum

To: District Manager, Bureau of Land Management,
Las Cruces District Office, Las Cruces, New Mexico

From: Field Supervisor, FWS, Ecological Services,
Albuquerque, New Mexico

Subject: Endangered species information for the White Sands
Resource Management Plan, Dona Ana and Otero
Counties, New Mexico (BLM)

This responds to your May 22, 1985 letter and Biological Assessment identifying potential impacts of the subject management plan on threatened, endangered, or sensitive species.

We agree with your determination of no affect on the Federally listed American peregrine falcon, whooping crane, bald eagle, black-footed ferret, and the Federally proposed interior least tern. In addition, we concur with your proposals concerning the Federally listed Kuenzler hedgehog cactus (Echinocerus fendleri var. kuenzleri) and Lloyd's hedgehog cactus (Echinocereus lloydii).

The document indicates Argemone pleiacantha ssp. pinnatisecta, a candidate species, may be adversely affected by the proposed Land Tenure Adjustment action. Since this species may be listed in the future, we recommend the Bureau of Land Management (BLM) take actions to protect and enhance its habitat. Specifically, we recommend BLM maintain control of lands which contain habitat for this species. This should change your determination of potential adverse effect to no effect.

If we can be of further assistance, please call Maureen Long at (505) 766-3966 or FTS 474-3966.

John C. Peterson

cc:
Director, New Mexico Department of Game and Fish, Santa Fe, New Mexico
Director, New Mexico Heritage Program, New Mexico Natural Resources Department, Santa Fe, New Mexico
Regional Director, FWS, HR and SE, Albuquerque, New Mexico

GOVERNOR
TONEY ANAYA
DIRECTOR AND SECRETARY
TO THE COMMISSION
HAROLD F. OLSON

State of New Mexico

DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87503

STATE GAME COMMISSION
JAMES H. KOCH, CHAIRMAN
SANTA FE
A. H. GUTIERREZ, JR., M. D.
CARLSBAD
CHRISTINE DiGREGORIO
GALLUP
THOMAS P. ARVAS, O. D.
ALBUQUERQUE
JAKE ALCON
ALBUQUERQUE

July 1, 1985

Mr. Daniel Rathbun
District Manager
Bureau of Land Management
Las Cruces District Office
1800 Marquess Street
Las Cruces, New Mexico 88005

Dear Mr. Rathbun:

I have reviewed the Biological Assessment addressing threatened and endangered species for the White Sands Resource Management Plan/Environmental Impact Statement. In general, I find the document acceptable, but there are a few items that deserve comment.

The sections pertaining to brush control (either chemical or mechanical) are supported, provided no more than 640 contiguous acres of habitat are treated and that buffer zones of similar acreages are left between treated blocks. Additional buffer zones should remain within the 640 acre blocks, but the size and juxtaposition of these areas will be dictated by the characteristics of each site.

The statment at the top paragraph of page 3 regarding brush control indicates that vegetative manipulations will be aimed primarily at increasing important forage vegetation and decreasing undesirable vegetation from a livestock grazing standpoint. Under the concept of multiple use it seems inappropriate that your primary consideration here appears to be for livestock. Are you not directed to manage for the welfare of all biological entities?

The section dealing with the Sonora mountain kingsnake on page 18 is in error. There are in fact several records of this species in western Sierra County.

As a final note, several threatened and endangered plant species occur throughout the White Sands Resource Management Area. Brush control activities could be highly detrimental to many of these species. For this reason, I strongly urge you to contact Mr. Paul Knight of the New Mexico Department of Natural Resources regarding this issue.

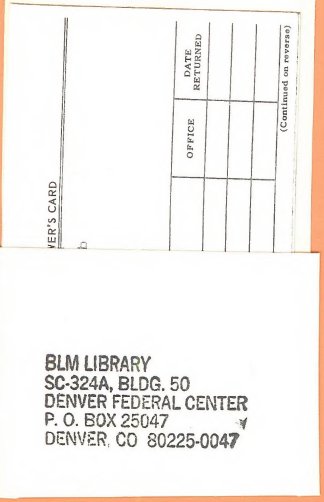
Sincerely,

Harold F. Olson
Director

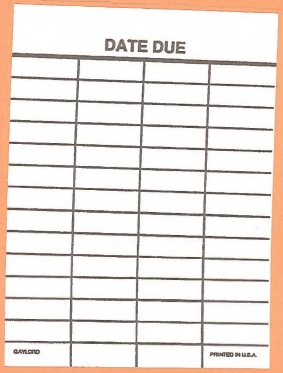
whb

cc. Paul Knight
Ralph Little
John Hubbard

☆ U.S. GOVERNMENT PRINTING OFFICE: 1985—576-070/20,014 REGION NO. 8



BLM LIBRARY
SC-324A, BLDG. 50
DENVER FEDERAL CENTER
P. O. BOX 25047
DENVER, CO 80225-0047



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

1800 MARQUESS STREET

LAS CRUCES, NEW MEXICO 88005

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

POSTAGE AND FEES PAID
DEPARTMENT OF THE INTERIOR
INT 415